الجامعة المصرية

كلية الطب المولف رقم ٤

منتخب كتاب جامع المفردات لأحمد بن محمد بن خليد الغافق المتوفى نحو سسنة ٥٩٠ه

الخسيه

نشره مع ترجمته الانجليز بة وشروحات

الدكتور ماكس مايرهوف ، الدكتور جورجى صبحى بك الأساذ بالمامة المصرية الرمدى بالقاهرة والطبيب بمستشفى قصر السيى

القسم الثاني - حرفا الباء والجيم

القاهسرة طبع بالمطبعة الأميرية بمولاق ١٩٣٧

الحامعة المصرية

الخسبه

أبو الفرج غريغريوس المعروف بابن العبرى المتوفى ف ســـنة ٦٨٤ هـ

نشره مع ترجمته الانجايزية وهروحات

الدكتور ماكس مايرهوف ، الدكتور جورجى صبحى بك الدكتور المادية المرية

الدشاد بابنامعه المصريه والطبيب بمستشفى قصر العينى الرمدى بالقسامرة

القسم الثانى ــ حرفا الباء والجيم

القامسرة طبع الطبعة الأميرية بيولاتي ١٩٣٧

حرف الباء

۱۱۷ — بلَسان : (ذَ آ) عظم شجرته كشجرة البطم أو شجرة فوراقتًا له ورق كورق السذاب غيرانه أشد بياضا كثيرا وأدوم وأدق ورقا . ويكون فى غور بلاد اليهود فقط وقد يختلف بالخشونة والطول والدقة وقد يسمى ذلك 16 r.

الدقيق الذي كالشعر الموجود في شجر البلسان المحصود ولعله يسمى هكذا لكونه يحصد بسهولة لدقته وأما دهن البلسان فانه يخرج بعد طلوع الكلب بأن تشرط الشجرة بمشراط من حديد . والذي يسيل منه شيء يسير والذي يجتمع منه في كل عام ما بين الخسين الى الستين رطلا ويباع في مكانه بضعف وزنه فضة . أجوده الحديث القوى الرائحة الخالص الذي ليس في رائحته حوضة سريع الانحلال لين يلذع اللسان يسيرا . وقد يغش بدهن البطم والحنا وشجرة المصطكى ودهن السوسن والدهن المسمى ماطوبيور . (١) وبدهن الآس مع العسل أو الشمع . ومعرفة بالمال منه انه إذا قطر منه على صوفة وغسل من بعد رسب في الماء . والمفشوش فانه يطفو مثل الزيت ويجتمع أو يتفرق فيصير بمتزلة الكواكب ، وإذا عتى ثخن . وعد يغلط من يظن أن الخالص إذا قطر على الماء يغوص أولا في عمقه ثم أنه يطفو عليه وهو غير منحل .

وأما العود المسمى عود البلسان فأجوده الحديث الخمن الدقيق العيدان الأحمر الطيب الرأعة كرائحة دهن البلسان . وأجود حبه المتلى الكبير الثقيل الذي يحدى اللسان حذيا يسيل ويفوح منه رائحة دهن البلسان [وقد يؤتى بحب من البلاد التي يقال لها البطرايون شبيه بالأوفار يقون يغش به حب البلسان] (٢) . ويستدل

⁽۱) ٿوءَ: طوييون.

⁽٢) هذه الجلة ناقصة في ت وغ، وقد تقلناها من جامع اين البيطار (بن ١ ص ١٠٨) . .

عليه انه صغير فارغ ضعيف القوة شبيه بطعم الفلقل . (جَ وَ) البلسان يجفف ـ ويسخن في الثانيــة وليس له من الاسخان قدر ما يظنه به قوم غلطا منهم بسبب. لطافته وأما ثمرته وهي حب البلسان فقوتها من جنس هذه القوة بعينها إلا أنها أقل. لطافة من دهنه . (ذَ) قوة دهن البلسان شديدة جدا وهو حار مفرط الحرارة ينفع من أكثر الأمراض الباردة شربا وادهانا واكتحالا وبالجملة أقوى ما فيـــه دهنه و بعده حبه و بعده عوده (ابن جلجل وغيره) إن الحب المعروف بحب البلسان هو حب البشام وان شجرة البلسان ١١٠ المسمى عودها عود البلسان ويسمى دهنها دهن البلسان ليس بها ثمرة ومنبتها في مصر بعين شمس فقط . وأما البشام فينبت بمواضع كثيرة وهو الذي يجم حبه فيجلبه الصيادلة ويبيعونه ويسمونه حب البلسان . (قال المؤلف) لست أرى هذا القول صحيحًا على كثرة تواتره وعلى أن جميع التجار_ اليوم مجمعون على أن حب البلسان هو حب البشام . وقد نجد كثيرا بين حب البلسان الذي يجلب الينا شيئا من عود البلسان وقد نجد في عود البلسان شــيئا من حبه وهــذا يدل على أنهما من شجرة واحدة ، وأما دهن البلسان فقد رأيت قوما يخبرون أن شجرته بمصر من دخل مصر يزعم أنه رأى شجرة بعيز_ شمس فقط. في جنان يحميم السلطان فلا يخرج من حبها إلى البلاد شئ لئلا يزرع . وبعضهم يزعم أن دهن البلسان إنمــا يخرج من عوده بالتصعيد وهــــذا خلاف لمــا ذكره.

القدماء و يمكن أن يكون هـذا المعروف اليوم عندنا بدهن البلسان غير الذى ذكره. القدماء مع أنه على غاية القلة والعدم . وحبه ايس كذلك بل هو موجود كثيرا وكذلك عوده وقـد ذكر كثير من الأطباء شجرة البلسان التي بمصر بعين شمس ووصفوها في كتبهم بأنها شجرة البلسان ؛ تعلو على الأرض قدر ذراع أو أكثر ولها قضبان غضة كقضبان الشبرم ولها ورق أحمر دقيق صغير يشبه ورق الخلاف أو ورق اليتوع . ولها في رأس أغصانها عناقيد فيها حب في قدر الفلفل إلا أنه أقل سوادا منه .

⁽١) ت: البشام .

وعندنا نبات يزعم قوم أنه البَشام يعلى نحو القامة وله ورق طويل أخضر يضرب إلى صفرة وغيره أصغر من ورق اللوز وعوده خوار في داخله شئ أبيض كالقطر... فيه عطرية وله حب في قدر حب الفرو وهو عطر الرائحة وقد يباع ويستعمل عوض حب البلسان ونباته في شواهق الجبال . وآخر وند يزعمون أنه نوع من الأراك . وقد يمكن أن يغش حب البلسان بحب أصناف الفرو فان فيها ما يشبهه جدا (أبو حنيفة) البشام شجر ذو ساق وأفنان وورق صفار أ كبر من ورق الصعتر ولا نمر له . و إذا قطمت ورقته أو قصف غصنه خرج منه لبن أبيض . وهو شجر طيب الرائحة والطعم يستاك بقضبانه ومنابته الجبال . وورقه يسود الشعر .

الأثل وورقه أبيض وله هدب كهدب الأثل وخشبه خوار رخوخفيف وقضبانه الأثل وورقه أبيض وله هدب كهدب الأثل وخشبه خوار رخوخفيف وقضبانه خضر وهدبه ينبت في القضيب وهو طويل شديد الخضرة ثمرته كقرون اللوبيا للا أن خضرتها شديدة وفيها حب . فأذا انتهى تفتق وانتثر حب أبيض أغبر نحو الفستق غير أنه أقصر وأشد سمرة. ويتفت نحو قشور الفستق ومنه يستخرج دهن البان وثمره يسمى الشوع وهو مربع ويكثر على الجدب . وإذا أرادوا طبخدرض على صلابة وغربل حتى يتغزل قشره ثم يطفعن ويتعصر وهو كثير الدهن .

(ذ د) بالانوس مورافسيق . ثمرة شجره تشبه الطرفاء وقد تعتصر كالثرز المر فتخرج منه رطوبة فتستعمل في الطنب المرتفع مكان الدهن . وقد تنبت هدف الشجرة ببلاد الحبش ومصر والعرب والموضع المسمى فاطوا في فلسطين . وأجود هذا الثمر الحديث الممتل السهل التقشير . اذا شرب منه مسحوقا ذرحى بحل ممزوج بماء أذبل الطحال و يضمد به التقوس ويذهب الجمرب مع الحلل . (ج و) هذا دواء يجلب إلينا من العرب والعطارون يستعملون عصارة لبه وجوفه . وشرب مثقال من عصارته بالعسل والماء يقء ويسهل كثيرا ومع الحلق يجلو الكلف والبهق

17 r.

والنمش والسعفة والبثور المتقرحة . والقشر الخارج مر_ حب البان فقبضـــه أكثرجدا .

119 - بُنْك (١) : ([]) ناسقافنون وقد يسمى نارقافنون يؤتى به من الهند ، وهو قشر كقشر شجر النوت ويدخن به لطيب رانحته ولنفعه فى انضام فم الرحم . (ابن رضوان) دواء طيب الرائحة يقال انه ينحت مر أصل خشب أم غيلان بايمن . قابض بارد يابس يقوى الأعضاء ضمادا ويمنع العرق. (ابن سينا) بأجوده الأبيض الحقيف العدب الرائحة والأبيض الرزين ردى . حار يابس فى الأولى جيد المعدة ينقى الجلد ويقلع رائحة النورة . (المجودى) ملطف يقوى المعدة والكبد الباردتين ضمادا وشربا .

١٢٠ - بُطِم : (الفلاحة) ينبت بالجب ل على حجارة وصخر وعيدانها خضر الى السواد وحبها أبيض . (دَ آ) طرميانوس (٢٠ شجرة الحب الخضرة قوتها كقوة شجرة المصطكى وصمنتها كصمنتها ويصنع دهنها كدهن الغاد وشراب شجرتها كشراب الآس . وهو قابض مسخن وثمرتها ردية للحدة مسخنة مدرة للبول تحرك شهوة الجماع ومع الحل توافق نهشة الرتيلا . (جَ حَ) فى لحآء هذه الشجرة وثرها وورقها شيء قابض مجفف مسخن مدر ينفع الطحال .

الذى هو منها شبيه بالنشاء فيا بين القشر والعود فهو أشد قبضا . وكذلك النشاء الذى هو منها شبيه بالنشاء فيا بين القشر والعود فهو أشد قبضا . وكذلك النشاء المستبطن قشر ثمرته أعنى التي تحت قشرة البلوط ملفوفا على نفس جمم البلوط وهو جَفْته . يشفى نفث الدم وقروح الأمعاء وأكثر ما يستعمل مطبوخا . وأقوى من هذا في القبض النبات المسمى فيغوس والمسمى فرينوس اللذان يعدان من أنواع

⁽١) ت: ننك ، غه نيك

⁽٢) ت : طرميتوس ، غ، طرميتوس

البلوط و يجوز أيضا أن يعتقد أنهما يخالفانه في الجنس . وقال (في الأغذية) البلوط كثير الغذاء يتخذ منه خبر وفي سالف الدهر كان الناس يتغذون به وحده. وغذاؤه ثقبل غليظ عسر الانهضام وأجود منه الشاهبلوط . (ذَ آ) دُروس : طبيع قشره اذا شرب بلبن البقر نفع من السم المسمى طوكسيقون والمسمى أفيارون (١) . والنوع من البلوط المسمى فرينوس أفوى فعلا من سائرها و يسود الشعر . والشجرة المياة فيغوس أيضا من أصنافه . وأما ما يسمى سرديا نو ولوفيا وقسطانيا وموطا و بلوط كوكب المشترى ، وهو الشاهبلوط فانه قابض أيضاً

۱ ۲ ۲ - بَقْس : يسمى بالشام الشمشاد و باليونانية بقسيس (ابن جلجل) شيرة ورقها كالآس وحبها كميه وعودها أصفر صلب قابض يعقل البطن .

الم ١ ٢٣ – بقّم : (نّ) خشب شجر عظيم ورقه كورق اللوز أخضر وساقه وافنانه حر ونباته بأرض الهند والزنج ويصبغ بطبيخه . (ابن رضوات) يلحم الجراحات و يحفف القروح و يقطع انبعاث الدم .

17 v.

١٢٤ — بليلج: (ابن عمران) ثمرة هندية خضراء ترض وتجفف فتصغر طعمه مرّ عفص. (غيره) يشبه الهليلج أملس القشر رخو عفوصته للميذة مع مرارة يسهل السوداء باللطف. (ابن سيناء) لا شيء أدبغ للمدة منه وربماء عقل البطن وفي الأكثر يلين. (الجومى) قوته أضعف من الأملج.

١٢٥ - بُل : (الخوزى) هو قتاء هندى كفتاء الكبر مر حار يابس في الثانية قابض عقل يقوى الأحشاء نافع ينفع الأمراض الباردة . (ابن عمران) هى حبة سوداء محددة تشبه الذرة في داخلها ثمرة دسمة وهي المستعملة يؤتى بها من الهند تنفع من استرخاء العصب والنقرس وتزيد في الباه .

⁽١) ت: افادرن ، غ: فارون ،

خيا بين الفستق واللوز الى الشاهبلوط أقرب من الفستق بالتشبيه أسود اللون في اين الفستق واللوز الى الشاهبلوط أقرب من الفستق بالتشبيه أسود اللون فى دناخله حبة كاللوزة بيضاء عليها قشر حوله عسل أسود الى الحرة . (غيره) يؤتى به من الصين وقد ينبت بصقلية فى جبل النار . (ابن سينا) لبه كلب اللوز حلو لا مضرة فيسه وعسله لزج ذو واتحة مقرح مورم يحرق الدم والأخلاط . ينفع من الأمراض الباردة وفساد الذكر الكنه يهيج الوسواس والمالنخوليا وهو سم . (غيره) لبه باذ زهر له يدفع ضرره وقوم يقضمونه ولايضرهم خاصسة مع الجلوز

١٢٧ — باقلى: (جَ زَ) معتدل التجفيف والجلاء وجرم الباقلى فيه من كيفية الجلاء شيء يسير. وأما قشره قوته تقبض لا قوة تجلو ، ولهذا صارقوم من الأطباء يطبخون الباقلى بقشره و يطعمونة من به قرحة الأمماء ومن به استطلاق أوقى . والباقل على شكل الطعام أشد نفخة من كل طعام وأعسر انهضاما إلا أنه يعين على نفث الرطو بة من الصدر والرئة و ينفع الأورام الحسارة ضمادا والمطبوخ مع شجم الخترير للنقرس .

(وقال في الأغذية) الباقلي نافع ولا ينفك عن النفخة بالطبخ كما لا ينفك الشعير. (ذَبّ) قوامُس. يولد الرياح وبرى أحلاما ردية كاذبة و يزيد في لحم البدن وإذا طبخ بالحل والماء وأكل بقشره قطع الاسهال من قرحة الأمعاء. والباقلي الحديث أردى للعدة من العتيق. (غيره) خلطه ليس رديا ولا مولد السدد لأنه يجلو جلاء حسنا لكن إدمانه يثقل الرأس ويوهن الفكرويورث هموما وأحزانا ويلد تكسيرا في البدن وحكة وخصوصا طريةً .

۱۲۸ – باقلّی قبطی : (ذَّبّ) ینبت کثیرا بمصروفد ینبت أیضا بآسیا وقبلیقیا و یوجد فی المیاه القائمة . ورقه کبار کالأجنحة وطول ساقه ذراع فی غلظ الأصبع . ولون زهر، کلون زهر، الورد أحمر وهسو فی عظمه قریب من زهر الحشخاش وإذا أورق عقد سنا كالخراريب وفيه الباقلي صدار و يعلو موضعه على الموضع الذى ليس فيه حب كأنه نفاخة الماء. و يسمى قيبوريون وقيبوتيون وهو الموضوع في مَدّر الطين الأن الذين يررعونه يصديونه في كل من الطين ويلقونه في الماء. وأصله مثل القصب يؤكل مطبوعا ونيئا ويقال له قلقاس . وقد يؤكل مطاوعا ونيئا ويقال له قلقاس . وقد يؤكل مطاوعا الباقل المعروف وقوته قابضة هذا الباقل المعروف وقوته قابضة جيدة العدة . (الفلاحة) ينبت في المياه القاعة بمصر . ورقه أنفش من ورق الاتزنج قليلا وعيدانه ضعيفة فيها تعو يج وعقد كثيرة وأصوله أكبر وأشد .

18 r.

تدويرا من أصول القصب . غذاؤه يسير مجمود ويتولد عنه لحم رخو قليل ودم. صالح قليل الاهتياج والثهران .

1 ٢٩ سنين : (ذ د) لوطوس المصرى هو صنف من الحندقوقا يكون بمصر وينبت في ماه النيل اذا فاض وساقه كساق الباقلى . وهو أبيض شهيه بالشعر ينبسط اذا طلعت الشمس وينقبض اذا غربت الشمس وان رأسه اذا غربت الشمس ينوص في المساء واذا طلعت يطلع على المساء . ورأسه يشبه العظيم من رؤوس المشخاش وفيه يزر كالجاورس يحققونه المصريون ويطبحونه ويعطونه منه خبزا . وله أصل شبيه بالسفرجلة يؤكل مطبوخا ونيئا وطعمه مطبوعا يشبه طع صفرة البيض .

٩ ٣٠ - بيرور^(١) . (قسطا لين لوقا) نبات ينهت في الميساء القائمة وينكشف عنها وهو في شكل الكناة . وعليه قشر أحمر بستخرج من الأوضى كالكناة و يؤكل مسلوقا . (ابن رضوان) هو أصل البشتين النابت في الديل .

⁽١) غ: يروز ، اين اليماار و دارد الانطاكي: يادرن ،

۱۳۱ - بيقة (۱۰ ق. آ. (آ. آب) افاق تنبت في الحروث وهي أطول من نبات المدس دقيقة الورق وهي أعظم قضبانا . وغلف ثمـ هما أكبر من غلف ثمر المدس وفيه ثلث حبات أو أربع سود أصغر من المدس . ويؤكل مثله مطبوخا ومطحنا يقطع تجلب المواد الى المعدة والأمعاء . (ج و) قوة هذه الحبة قابضة وحرارتها معتدلة وهي أعسر انهضاما مر المعدس . (وقال في الأغذية) هو ردئ الحلط السوداوي كالمدس الا أن للمدس فضائل ليست له .

۱۳۲ — بَحْرَة تسمى بالعجمية ارفيليه (۲) : (فَ)عشبة كالكشنى وحبه كمبه . ترعاها المساشبة نتسمن . ونباتها في القيمان .

والحَدَق والوغد: (الرازى) جيد المعدة التي تق الطعام دائما ردى الرأس والمغد والحَدَق والوغد: (الرازى) جيد المعدة التي تق الطعام دائما ردى المرأس والهين مواد دما سوداو يا يسيرا و يفتح سدد الكبد والطعال. والخل والدهن يصلحانه وشر ما يؤكل منه المشوى والتي و . (غيم) اذا شق وملح بالملح حتى يحرى ماؤه وتنهب حرارته لم يتبين له ضرر. واكنه ردى الفذاء مسود البشرة مصفر الون مبتر اللهم . (ابن سينا) المتيق منه أردى والحديث أسلم . وعند ابن ماسرجو يه أنه بارد والصحيح أنه حار يابس في الثانية مسدد الا المطبوخ منه بالحل وليس يعقل ولا يطلق .

1 7 8 — بصل : (جَ زَ) مسخن في الرابعة وجوهره فليظ. (ذَبّ) مسخن في الرابعة وجوهره فليظ. (ذَبّ) قروميون . الطو يل منه أشــد حرافة من المدور والأحمر من الأبيض واليابس من المخضر والنيء من المشوى ومن المخلل والملح . وكل البصل فهو لذاع مولد للرياح فاتق لشهوة الطعام ملطف معطش مغثى متىء فانح للبطر ... مفتح لا فواه العروق والبواسير . واذا اكتحل بمــائه مع المسل فقع من ضعف البصر ومر... ارغاما

⁽١) كَدَا في ت و غ ، ابن البيطار : بيقية .

⁽٢) ت: أوظيولة ، غ: أوفيلقة ،

18 v.

والغامة وابتداء المساء والمطبوخ منه أشد ادرارا للبول. (غيره) يولد خلطا رديئة و يضر بالمقل ويسبت والطبخ يصلح حدته و يزيد في البساء حيثئذ واذا أكل نيئا يدفع ضرر الميساء وإختلافها .

مرادة وقبض يخشن الحلق . (ج و يسمى بصل الزيز (الفلاحة) وهو بصل لا طاقات له وورقه وصدورته كالبصل البستانى وقد يعظم أصله بكثرة المطر. وفي طعمه مرادة وقبض يخشن الحلق . (ج و) الزيز يولد خلطا باردا غليظا لزجا لأنه عسر الإنهضام نافخ مهيج لشهوة الجماع ومن خارج يجلو ويدمل و يجفف .

(ذَ بَ) بولبوس (1) : هو نبات يؤكل والاحرمنه من بلاد ليبوى جيد للمسدة والمترمنه يشبه الأسقيل وهـ و أجود للعدة من الحلو و يهضم الطمام ويشهيه كثير الغذاء يكثر اللمم ويولد نفخا غشن للسان وجانبي الحنك . مع العسل ينفع عضة الكلب الكلب ضادا .

١٣٦ – بصل التيء (ذَ دَ) : ورقه أدق وأطول بكثير من البلبوس الماكول وأصله كأصله عليه قشر أسود وأصله بقيء . (جَ زَ) هــــو أسخن من المذكور قبل

وفي الورق آثار لونها الى البياض . (ذَبّ) قيقلامينوس . ورقه كورق قسوس وفي الورق آثار لونها الى البياض . وطول ساقها أربع أصابع طيها زهر كالورد الأحر فرفرى . ويخزن (٢) (الأصل) مثل بصل الفار وينبت في مواضع ظليلة دافيا وخاصة في ظلال الشجر . وأصله مع شراب إذرومالي يسهل بلنها كثيرا أو كيموسا يابسا . وقيل أنه اذا تخطأته الحامل أسقطت وإذا شد في الرقبة أو العضد منع الحبل . ومع الشراب ترياق للسموم خاصة الأرنب البحرى ومع ماليقراطن الخزوج بالماء القراح يبرئ من البرقان ثلاثة مثاقبل منه و يجب أن يدفي شاو به

⁽۱) ت. بولويوس .

 ⁽۲) هذه الكفة قاضة فى ت و غ - وقال ديومقوريدس : وإذا ظع أصل هذا النبات يخزن الخ

يتنطيته بثياب كثيرة واضطجاعه فى بيت حار ليعرق . ويقتل الجنين شر با ولطخا على السرة والمراق والخاصرة و يلين البطن . (ج ز) (1) قوته منقية جاليسة مفتحة جاذبة محللة مدتة مفسد للجنين لو طلى على مراق البطن . وينفع أصحاب الزقاق لاخراجه المرار المنتشر فى جميع البدن بالعرق وكذلك ينبغى لنا نحن أن نحتال كل حيلة فى اجتلاب العرق لشاربه .

۱۳۸ - بخور مربيم آخر: (ابن الهيثم) نبات ورقه دقاق في صفة ورق النيل. وعلوه ذراع دقيق في أصل كل ورقة عسلوج صغير في طرفه رؤوس صفر كأنها شعبة من أكليل الشبث و بزره كبزره. وأصله يمنع الحبال تعليقا على المرأة.

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٩ ٣٩ -- بهمن : (ابن رضوان) هو أصل جَزَد برى منه أبيض ومنه أحر (غيره) البهمن ضر بان أحر وأبيض وهي عروق في قدر الجؤر كثيرا ما تكون مفتولة ومعوجة منتسجة طيبة الرائحة والطعم وفيها لزوجة حار في الثانية لطيف مفتح مقو للقلب جدا مسمن ينفع من النقرس ويحرك شهوة الجماع (لى) الأطباء المتأخرون متفقون في صفة المهمن وقويته الاأنه .

19 r.

عندنا اليوم مجهول والاختلاف فيه كثير والمجلوب منه مع أنه غير شبيه بما وصفوا فيه أيضا اختلاف كثير. وقد يؤتى بأصول كالجزر داخلها أبيض وظاهرها لكى اللون ويقال أنه البهمن الاحمر. وقد يؤتى بقطع كالزنجبيل صلبة كالقرون عاجية اللون فيها لروجة ويقال أنها بهمن أبيض وقد يستعمل نبات يسميه بعض الشجارين كف آدم ويزعمون أنه البهمن الاحمر وهو نبات يعلو ساقه نحو مرف ذراع وورقه في قدر ورق الآس أطرافها إلى التدوير ماهي وأصول خشبه لونها ما بين السواد والصفرة وداخلها إلى الحرة. وقد يكون نبات يسمى الكف

⁽۱) ټوغ:و٠

البلذماء (١) له أصل كالشلجمة لونه أغبر إلى الحمرة هش خفيف رخو ينتؤ منه شهيه الاصابع اثنان أو ثلاثة ولحذا النبات ساق مربعة لونها فرفرى عليها زهر فوفرى كرهر خصى الكلب وكأنه صنف منــه . وينهت في رمال قريبة من البحر. .ويستعمل أصله بدل البهمن الأحمر وقوته كقوته . وقد يؤتى بعروق بيض طوال مفتولة رخوة الزجة وهي البهمن الصحيح وقد يظن قوم آنه أصل النبات المسمى المجمية برشانه وقد بيع الشجارون أصل البرشانه على أنه البهمن الأبيض الصحيح وقد يظن أن قوته كقوته . وهذا النبات له ورق فى طول نراع وأكثر . وعرضه دون الشبر وهو مشقق مشرف جعد أملس أخضر الى السواد وله برنق وهوكثيًّا نابت من أصل واحد واطرافه منحنية ماثلة الى الأرض وله مساق خارجة من بين الورق في غلظ الابهام طويلة جوفاء مدورة عليها ورق صغار من خصفها إلى أعلاها إلى الطول ما هي فيهما تشريك وفيا بينها غلف كثيرة بعضها فوق بعض في شكل مناقير البط عليها زهر فرفري ماثل إلى البياض داخله ثمر كالبلوط مملوه رطوبة لزجة . وله أصل طويل معقد رخو يشبه أصل الخطمي عملوء رطو بة لزجة غائر في الأرض فيــه شيء من حلاوة مع حرارة . قوته كـقوة المبهمن يزيدنى الباه ويخصب البدن ويدز البول وبعض الناس يسمى هذا النبات مطرشانه وبعضهم يسميه عشبة التجار ونباته في المواضع الرطبة من الجبال والخنادق . وقد يتخذه بعض الناس في المنازل والبساتين .

 ١٤٠ - بوزيدان : عامة الصيادلة يقولون أبو زينان ويزعمون أنه خصى النالب وهم فيه على الخطأ . وبعضهم يزعم أنه ألبهج والصحيح أنه البهج أو صنف منه .

(ابن جلجل) البوزيدان أصول صلبة بيض تشبه البهمن الابيض . وهو دواء هندى قليل التصرف وقد جلب الين اورأيته صرادا . (ابن دضوان) هو ضرب من المستعجلة حار يابس في الثالثة يذيب الإخلاط الغليظة الباردة . (ابن ماسويه) .

⁽۱) ت رغ: الجاسا -

19 v.

اجوده ما ابيض لونه وغلظ عوده وكثرت خطوطه الغيرالاملس . (حبيش) منافعه كنافع السورنجان في المفاصل والنقرس . (ما سرجو به) حار يزيد في المنيّ وبسهل الماء الأصفر شربته درهمان . (ابن سينا) ينفع من السموم .

اله ١ ٤ ١ - بَهِجَ : هو المستمجلة معروف يؤتى به مر المشرق وقيل انه المغاث وقيل انه المغاث وقيل انه المغاث وقيل انه المغاث وقيل انه الله زيدان . وهم عروق بيض صلبة فيها لزوجة يستعملها النساء للسمنة وهو خطأ . وقد يغش به آخريشبه . وقيل انه أصل نبات ورقه كورق الطرخشقون إلا أنه حلو الطعم . وله أصل أحمر وله دممة حمراء كالدم . اذا قشر حرج داخله أبيض و يجمه الشجارون فيبعونه عن البهج .

١٤٢ بَلسكان ويقال باداسقان وبَدَسةان وبداسكان: (اب. مرافيون) قبل انه نبات مدور يجلب من أذر بيجان. (الرازى) حثيشة يتخذ منها النجط أسورة. (ابن سينا) حشيشة يتخذ منها الزنج أسورة. (المجوسى) حاريابس ملطف محلل.

الإ الخورد : (تَرَجّ) أقتالوقى أى السوكة البيضاء . وينبت في جبال وغياض ورقه كورق الخامالاون الابيص أدق منه وأشد بياضا وطيه شيء كالزغب وهو شوك طول ساقه أكثر من ذراعين في غلط الابهام وأكبر ولونها الى البياض ما هي جوفاء مربعة على طرفها رأس مشوك شبيه برأس القنفذ البحري إلا أنه أصغر منه مستطيل لون زهره فرفيري و بزره كحب القرطم إلا أنه أشد استدارة منه . شرب أصله صالح لنفث الدم والاسهال المزمن . و بزره ينفع المنهوشين و يطرد الهوام من المواضع التي تعلق فيها (ج و) في أصله تجفيف وقبض معتدل يضمر الأورام الرخوة ضادا وطبيخه ينفع وجع الأسنان مضمضة . (المجوسي) أصله أقوى من ورقه وينفع من الحيات المتيقة واذا وضع على نهش المقارب ممضوعًا نفعها .

المعربض الورق مسبع الخضرة يتخسذ في البساتين . (ابن بيلجل) هو الحبق العربض الورق مسبع الخضرة يتخسذ في البساتين . والحبق القرنفلي نوع مسه غيره هو بالمشرق من بقول المايدة . (جَحَ) حار في الثانية لا ينفع من داخل بل ضهاده يمثل وينضج . (ذَبّ) أوقيمون وهو الباذروج كثرة أكله تظلم العين وتاين البطن وجهيج الباه وتدر البول وهو عمر الانهضام . وماؤه يجلو ظلمة البصر وشمه يحدث عطاسا وينبني أن يغمض العين تغميضا شديدا وقت العطاس . وقوم يحذرون أكله لأنه إذا مضغ و وضع في الشمس تولد منه دود . (الرازي) جيد المعدة والقلب والخاه ينظم البصر . (ابن سينا) فيه قوى متضادة والذلك يسهل من داخل ويقطع الرعاف من خارج سيا مع الخل والكافور ويدهب الضرس ويسمكن العطاس في مزاج و يحركه في مزاج فيره .

20 r.

عاقبة أكله غير محمودة وهو مما ينقص الذهن جدا ويولد الدود فى الجلوف ويولد دما رديا .

١٤٥ - باذرنجبوية . هو اللاعية النحلية وهو الترنجان : (أَدْ جَ) ماليسوفولون وقد يسمى ماليطينا أى حشية النحل وإنما سمى جهذين الأسمين لاستطابة النحل الحلول فيها . وورقها وقضبانه يشهان ورق بالوطى وقضبانه إلا أن ورقها أكبر وليس عليه زغب . ورائحته كرائحة الاترنج . شرب ورقها بالسذاب والضاد به يوافق لسعة المقرب ونهشة الرتيلاء وعضة الكلب الكلب . (عيره) معتدل الحرارة لعليف ينفع من جميع الأمراض السوداوية ويعليب النكهة ويفرح القلب . وشرب من ماء ورقه عشرون درهما و يؤكل نيئا مطبوط .
(جَرة) قوته كقوة الفراسيون الا أنه دونه كثيرا .

ا ۱۶۳ - بلوطی . وقد يسمى المرو البرى و ريحانا بريا : (ذَجَ) ويسمى مالامفراسيون وهو نبات قضيانه حربعة سوداء عليها زغب ومخرجها

من أصل واحد كبير شهيه ورق فرا-يون الآأنه أكبر منه وأشد اسـتـناره متفرق. بعضه عن بعض كورق ماليسوفين منتن الرامحة ولذلك سماه بعض الناس ماليسوقان والزهر على القضيان على اســـنـارة والتضمد بورقه مع الملح ينقم عضة الكلب. الكلب. (جَ وَ) قوته كقوة الفراسيون الآأنه دونه كثيراً.

١٤٧ — بولوڤنيمون : (آج) هو شجرة صنيرة تستعمل في وقود النار ورقه كورق أور يغانس وثمر شبيه بالفلك كشمر غليخُن . وليس عليه أكليل لكن له رؤوس صغار طيبة الرائحة مع حده . وإذا تضمد به ألصق الجراحات وينبني أن لا يحل ضامه الى اليوم الخامس . (ج ح) يسخن و يجفف في الثانية . يعمل مواضع الضرب .

1 ٤ ٨ - بكسكني (1): يسرف بمصفاة الراعى والودود وعب الصبيان . (ذَجَ) أفارينى وقد يسمى أمفالوقارفوس وعب الناس وهو نبات ذو أغصان كثيرة طوال مربعة خشنة عليها ورق نبات باستدارة مفرّق بعضه من بعض كورق . الفرّة وزهر أبيض و بزر صلب مستدير وسطه الى التجويف ما هو مثل السرة . وقد يملق هذا النبات بالثياب وقد يستعمله الرعاة مكان المصفاة في تصفية اللبن من الشعو . عصارة ثمره وورقه بالشراب ينفع من نهش الرتبلا والأنمى شربا ومع . الشعر يملل الخاز برضادا . (جَ وَ) هذه الحشيشة تجلو قليلا وتجفف وتلطف .

الله الما يخيون حشيشة السعال: (أَ حَ) وقد يسمى فيثيون وفيخيون وفاطرانيون (٢٠٠ و وقد كورق قِسُوس بل أعظم بست أو بسبع تنبت من الأصل ولون ما يل أسقل الورق أبيض وما يل أعلاه أخضر وفي الورق زوايا كثيرة وطول ساقه شبر. ويظهر له في الربيع زهر أصفر و يسقط زهر، وساقه

⁽١) ابن البيطار : بلسكي ، غ : بلسخني ، ت : بلسكني

⁽٢) ت و غظطانون ٠

20 v.

مبريعا ولذلك يظن به أنه لا زهر ولا ساق له . وله أصل دقيق وينبت في مروج ومواضع مائية . ضماد ورقه مع للمسل ينفع الأورام الحارة واستنشاق دخافه ينفع للسمال وعسر النفس وطبيخه بالشراب يخرج الجلين الميت . (ج و) سمى بهذا الاسم لنفمه السمال وهو حاد حريف باعتدال ولذلك يفجر الدبيلات . (ابن سينا) طريه يقلم الجرب المنقدح .

و ١٥٠ _ رانجاسف و يقال برنجاسف وهو السويلا: (ذَ جَ) الطاميسيا زهر البلنجاسف ويقال برنجاسف وهو السويلا: (ذَ جَ) في كل سنة وهو لاحق بثمنس شبيه الأفسلتين ورقه أعظم من ورق الأفنستين وفيه رطوبة تمبق باليد . ومنه صنف انضر (١١) أغصانا وأعظم ورقا من باقيه وله زهر صناو دقاق بيض ثقيلة الرائحة تظهر صيفا . ومن الناس من يسمى ارطاميسيا لتبات دقيق العيدان ساذج الساق صغير جدا ملاكن زهرا شمى اللون صغير يستأنف اللون في كل سنة . (ج و) (٢) وقد يسمون ارطاميسيا حشيشتين كتناهما يسخنان يسيرا و يجففان ينفعان لقروح الأرحام . (ذ) . وكل هذه الأصناف يسخن و يلطف والجاوس في طبيخها يدر الطحث و يخرج المشيمة والجنين . (ضره) الأصغر الزهر أقوى فعلا من الأبيض الزهر .

101 — بابوئج: (ذَجَ) أنثاميس وقد يسمى لوقا نثيمون و إبرانئيمون أى يزهر ربيعا وخاما يميلون (٣) أى تفاح الأرض وميلانثيمون وخروسقاليس (٤٥ أى الذهبي وقاليس. وهو ثلاثة أصناف والقرق بينها [مما هو في لون الزهر, فقط ولد أغصان طولها فراع وأقل وفيها شَمَب دقاق وورق صفار دقاق ورؤوس مستديرة صفار في باطئ بعضها زهر أبيض وفي بعضها زهر ذهبي وفي الله يظهر عصف

⁽١) ٿوءَ: أقصر

⁽٢) ت وغ: هذه ألحروف ثاقصة ٠

⁽٣) ت: خالمبليون ، غ: خاماليون .

⁽٤) توغ: خروماليس

الزهر على الرؤوس يظهر باستدارة حولها ولونه يكون أبيص وأصفر وفرفرى وهو في قدر زهر السسداب و ينبت في أماكن خشنة و بالقرب من الطرق و يقلع في الربيع و يجع . وقوة هذا النبات وعروقه وزهره مسخنة ملطفة والفرفرى أقوى في تغتيت الحصا والأبيض والأصفر أقوى في أدرار البول . (جَ) و يسخن في الأولى و ربحى و يحلل و يوسع المسام .

۱۵۲ — بهال : هو الأقحوان الأصغر وبعضهم يسميه خبر الغسراب والبهار عند العامة هو النرجس . (دَ جَ) بغثلمون أى عين البقر وهو نبات له ساق رخصة وورق كورق الرازيانج وزهر أصغر أكبر من زهر البابونج شبيهة بالعيون وينبت في الدمن يحلل الأورام البلغمية بالقيروطي و إذا شربه صاحب اليرةارف في الحمام بعد خروجه من الابزن حسن لونه وقياه ماء . (ج و) ورده أكبر من ورد البابونج جدا وأكثر تحليلا منه . (ابن سينا) هو كاوچشم ورده أصفر اللون أحر الوسط أسمن من ورد البابونج .

١٥٣ – بنفسج : (ذَ دَ)(١)

21 r.

إيون . ورقه أصغر من قسوس وأرق وأشد سوادا وليس بسيد الشبه منه . (أن الجنراد) هو كورق الحيازى وقضبانه تفقش على الأرض . (أن) ورقه أصغر من الخبيز وساقه يخرج من أصل عليه زهر فوفيرى طيب الرائحة جدا ينبت فى مواضع ظليلة خشنة . اذا شرب زهره بالماء ينفع من الخناق وصرع الصهيان وورقه يرد ضادا . (ج و) جوهر ورقه مائى بارد قليلا .

⁽۱) ٿوءَ: ڏج،

\$ 10 - بهرامج: (ق) هو الرئف (١) وهو الخلاف البلغى . وهو ضربان ضرب منه مُشَرِّب شَسعر نَوره أحمر ومنه أخضر هياديب النور وكلاهما طيب الرائحة (١) . (لى) هـذا هو الياسمين البرى ورقه أكبر من ورق الياسمين وقضبانه مر بعة فى لونها فرفيريه تمتد حبالاً على الأرض وتتعلق بالشجر وله زهر أصفر من الياسمين أبيض فى عناقيد فى داخله هدب وهو طيب الرائحة جدا يظهر فى الصيف وله عروق فى غلظ الخنصر . ومنه صنف اخردقيق الورق جدا وقضبانه فى رقة الحلفاء وكلا الصنفين حديد الطعم جدا يقرح اللسان ولذلك يسميه العوام عشبة المار والنار الباردة . وقد يستعمل أصل هذا النبات بدل الشيطرج و بدل الخريق . الله والصنف الصغير منه وهو الذى ذكره ذيوسقوريدس وسماه قلياطيس . (ذ ذ ن) فلياطيس هو نبات يضرح أغصانا لونها الى الجرة رقاقا حريف جدا مقرح اللسان ويلنف على الشجر كما يتف ميلاخوس قوة ورقه محرقة حار فى أول الرابعة . (ذ ن)

١٥٥ — بَرَطائِيق : قيل هو البرتيقة الحلوة . (حنين) هو المسمى بستان أ بروز . (دَ دَ) هو ما المسمى بستان أ بروز . (دَ دَ) هو من النبات المستأنف كونه فى كل سسنة له ورق كورق الحماض البرى أشد سوادا منه وعليه زَخَبُّ و يقبض اللسان وساقه ليس بعظيم وأصله دقيق قصير يصلح لقروح اللم وورم اللوزتين . (جَ وَ) قابض يدمل الجراحات...

۱۰۹ – بستان ابروزُ: بستات افروز فارسی معناه منور البستان وبالعربی و برطانیت .. و العربی و برطانیت .. و برطانیت .. (دنین والرازی) هو برطانیت .. (ابن جلجل) نبات یملوفی قدره أكثر من ذراع له قضیان طوال علیها ورق كرق القشاء إلى الطول . وفی أطراف أغضانه وشائم لونها ف فیری ملیح

⁽۱) ت الرَّيْف، غ: الشريف،

⁽٢) أنظر كتاب الخصض لابن سيداج ١١ ص ١٤٣

المنظر وليس له رائحة عطرية . وأول من عرف هذا الدواء بالاندلس يونس الحرَّاني . شرب عصارته ينفع من السم المسمى اقونيطون وهوالنيال . (المجوسى) نوار بستان افروز يسكن حرارة المعدة بالسكنجين والجلاب .

۱۵۷ -- بَنْتُومه : هـذا نبات يعرب عندنا بهذا الاسم ويعرف أيضا بالزَّقْمة الفارسية وذرَّق الطيروقد يسمى الخُرَّقطان وبالسريانية ماراتُونا وهو ينبت في شجر الزيتون يخرج من نفس الشجرة وقد ينبت أيضا في شجر الكثرى . وله 21 %.

قضبان طوال معقده خضر وورق أخضر أقصر من ورق الزيتون وأعرض وأصلب، وله ثمر أحمر لزج وفى داخله بزر . ومن أراد زراعته شتى فى ساق شجرة الزيتون أو البلّوط أو نحوهما من الشجر وجعل فى جوف الشجر حبتين يفعل ذلك فى أول الربيع فانه ينبت . وشرب ورقة مع الطين الارمنى يجبر كسر العظام وشرب طبيخه يمنع السعال وطعمه قابض وفيه شيء من المرارة .

٨٥٨ - بُلوخوناطُن: أى كثير الركب و يعسرف بالفيورا. (دّذَ) هو ثَمْنُسُ وينبت في الجبال وطوله أكثر من ذراع وورقه كورق الغار إلا أنه أعرض منه وأشد ملاسة وفي طعمه شيء يسير من طعم السفوجل أو الرمان مع شيء من قبض . وفي كل موضع ينبت منه الورق زهرها أبيض كثيرا جدا متفرع من موضع واحد . وله أصل أبيض طويل كثير العقد عليه زغب ثقيل الرائحة في غلظ أصبع يقلم الكلف ضادا . (جَحَ) قوته وطعمه مركبان من القبض والحرافة وشيء من الكراهة والبشاعة ليس عميط به الصفات . فهو لذلك ليس (١١) نافع في أشياء كثيرة خلا أن قوما يستعملون أصله سمادا في مواضع الضرب وفي جلاء الكلف .

١٥٩ - بولامونيون : (دَ دَ) وقد يسمى فيلاطار يون وخيليذونامون
 وهو نبات أغصانه صغار دقاق مشعبة وورق أطول وأكبر من ورق السذاب يسيرا
 شبيه بو رق الشَبَطْبَاط أو فودنج الماء هو المسمى باليونانية قالامِنْتى وعلى أطرافه

⁽١) ت رغ: شيء .

شيء شبيه بالرؤوس المستديرة فيها بزر أسود . وأصله نحو من ذراع الى البياض . شبيه بأصل أسطروثيون وهــو الكُنْدُس . وينبت في جبال ومواضع خشنة . (ج ح) ملطف مجفف ينفع عسر البول وعرق النساء وبالخل لوجع الطمال والسمة . العقرب تعليقا .

• ١٩٠ سبنطافاًون : معناه نو خمس ورقات و يعرف بكف مريم . (ذَ دَ) وقد يسمى بَنطابيطوس وبَنطاطومون وبَنطانفقطولون وفسوّذوسالينون وقالليباطلون وتُسُولولُطون . وهو نبات له قضبان دقاق طولها نحو من شهرووقه كورتى النعنع خمس على كل قضيب وعسيرا ما يوجد أكثر من ذلك والورق ، مشرف فى كل جانب مشل تشريف المنشار . وله زهر لونه الى البياض والصفوة ، وينبت فى أمكنة رطبة وقريبة من الأنهار . ولون أصوله الى الحرة وهو يستطيل ، وهو أغلظ من الخربق الأسود وهو كثير المنافع . (جَحَ) أصله يجفف شديمة . بلا حدة ولا حرافة . (ذَ) طبيخه ينفع قروح اللم ووجع الأسناف مضمضة ومن خشونة الحلق غرغرة وهل الخنساز برضادا . وقد يشرب الرب بإدرومالى لحق . خارج والنب والصرع وقد يستمعل هذا النبات في الهياكل للتعلق .

ا ١٦١ – بَرَدَى : (ابر جلبل) هو الخلوص ويسرفه المصريون بالفافير . وهــو نبات ينبت في المياه وله ساق طويلة خضراه الى البياض عليــه تَنْقَلَةٌ كبيرة ويتخذ مر . هذا النبات كاغد أبيض بمصر يسمى الفراطيس لمثى عند عند عند النبات كاغد أبيض بمصر يسمى الفراطيس لمثى

قيسل فى الطب قرطاس محرق فانما يراد به هسذا الذى يكون من البردى . (له) البردى صنفان منسه ذكر لا يخرج له نبات ومنه آنق له سساق وله قطن يقال له المدوى صنفان منسال المدون عندنا لكنه صنف منه وقد كروا أن الفافير أغلظ ساقا من البردى وله خوص تكوص البردى ونباته متف فى سافه عليها ورق مثل هسدب الصنو بر ألا أنه أقل . وقشر نباكه قوى صلب يصنع منه ارسان وحبال قوية ويتخذ الناس هذا القشر لجل الصابون وغيمه . ومن

الفافيرخاصة يتخذ القراطيس . (ذَ آ) فافيروس وهو البردى معروف منه يعمل الفراطيس (جَ حَ) (١١ نبات ليس يستعمل في الطب متى أشع وأحرق وهمو مع الخل يدمل الجراحات . (ذَ) أصله يغذوا غذاء طيبا يسيرا وقد يمتصه أهل مصر و يطرحون ثفله . ورماده ينفع القروح الحبيثة من أن تسعى في الفم وغيره . (غيره) يعلم أصله النض الطحول فينفعه تعما بينا .

١٦٢ – بَنْج : هوالسيكران المعروف عندنا بهذا الأسم والسيكران بالحقيقة غره . (ذَدَ) إسقواميس وهـ و ثمنس قضبائه غلاظ وأوراقه عراض صـالحة الطول مشققة الأطراف الى السواد عليه زغب . وعلى القضبان ثمر كالجلنار في شكله متفرق في طول القضبان واحد بعد واحد منها مطبق نشيء كالترمس وهــذا الثمر ملاك نزرا شهمها بيزر الخشخاش . وهو ثلاثة أصــناف منه ما زهره فرفتري و ورقه سملكس و يزره أسود وزهره كالجلنار مشؤك ومنه ما زهره تفاحي اللـون وورقه وزهره ألين من الأول لوبن يزره الى الحمرة كبزر أروسين . وهـ أن الصنفان رديان يجننان و دـ بان . والثالث وهـ و ابن في المجس فيه رطوبة تدبق باليد وطيسه شيء فها بيز_ الغبار والزغب وزهره أبيض وكذلك بزره ، وينهت بالقرب من الشجر وفي الخرابات . فان لم يوجد هــذا الصنف فليستعمل الأحر البزر فأما الأسود فليرفض لشره . وعصارة هــذا النبات أجود وأشد تسكينا للوجع من صمغه . (تَجَرُّحُ) الذي بزره أسود والذي بزره أحمر يقتلان و يجننان وأما الأبيض فهو الذي ينتفع به في الطب وهو بارد في الثالثة . (غيره) البنج الأبيض يقع في الأدوية المسمنة بمقده الدم . وإذا دخن به الضرس الوجع في أنبوب سكنه .

١٦٣ - بِررقطونا : هو الأسفيوس بالفارسية . (ذَ دَ) فسوليون
 وقد يسمى قونوفيفالون وأهل سقيليا يسمونه قروسطاليون وآخرون قونوموا .

⁽۱) ټونو،

وهو نبات ورقه كورق قورونو بس وطيه زخب وقضبان طولما نحو من شــــبر وابتداء جُمته من وسط النبات وفى أعلاه رأسان أو ثلاثة مستديرة فيها بزر كالبراغيث أسود صلب وهو المستعمل وينبت فى

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الأرض المحروثة . (جَحَ) بارد في الثانيـة معتمل في الرطوبة واليبوسة . (ذَ) قوته مبردة اذا تضمد به مع الخل ودهن الورد والمـاء نفع من أوجاع المفاصل . (غيره) أجوده الكبير الممتلئ الذي يرسب في المـاء والمقلو منه قابض يعقل البطن وينفع من السحج وليتحفظ من سحقه فان الاكثار منه ربما قتل .

١٦٤ - بوصين (١١) : هو الجوثوان و بالبرية برياشكه (٢١). (دّدّ) فلومس هو صنفان أبيض وأسود. والأبيض منه أنثى ورقه كورق الكرب الا أن عليه زخب وهو أعرض من ورق الكرب وطول ساقه نحو من ذراع أو أكثر بيضاء وطيها زغب وزهم أبيض الى الصفرة و بزره أسود وأصله طويل عفص في ظفل الأصبع وينبت في الصحارى . ومنه ذكر ورقه أيضا أبيض الى الطول ماهو وهو أدق من ورق الأنثى وكذلك ساقه أدق من ساق الأثنى . وأما الصنف الأسود الورق فانه يضالف الأبيض وأعرض ورقا منه وهو يوافقه في سائر المحللات . وفي النبات صنف آخر يسمى فلومس برى له قضيان طوال لاحقة في كبرها بقضيان الشجر وورقه كورق الالسفاقوس وحمل القضيان أشياء مستديرة كالقلك مثل ما للفراسيون وزهم أصفر الى الذهبية . ومن النبات لون آخر يسمى فلومس وهو ثلاثة أصناف منها صنفان عليها زغب وهما لاصقان بالأرض ولها ورق مستدير والصنف الثالث يسمى لوخيطيس أى المراجيسة وقد يسمى ولما ورق مستدير والصنف الثالث يسمى لوخيطيس أى المراجيسة وقد يسمى ثرواليس أى الفراجية وقد يسمى

⁽۱) ت ره: کذاك .

⁽٢) توغ: بأشكه .

وفيها رطو بة تدبق باليد يعمل منها فتائل السراج . (جَرَحَ) أصل النوعين الأولين. فى طعمه قبض . وقوة جميع الأصناف تجفف وتجلو جلاء معتدلا وتحلل وقد تحمر الشعر بالنوع الذهبى الزهر .

١٦٥ — باطاسيطيس : (دَدَ) هو قضيب طوله نحومن ذراع وأكثر في غلظ الابهام وعليه ورق كالأجنحة الكبيرة وفي أعلا القضيب شيء ملتصق كأنه فطرة . اذا دق ورقه ناعما وضمد به نفع من الفروح الخبيئة . (جَحَ) يجفف في الثالثة .

ما ۱۳۳ — بونيون : (دّد) وقد يسمى أقطيون . وهو نبات ساقه مربعة صالحة الطول فى غلظ أصبع . وورقه كالكرفس الا أنه ألطف منه بكثير كورق الكربره . وزهره كزهر الشبث و بزره طيب الرائحة أصغر مر . بزر البنج . (دّ) بزره يسخن ويدر ويخرج المشيمة (جَوَ) حار مدر للبول والطمث . (دّ) بزره يسخن ويدر ويخرج المشيمة ويصلح لوجم الطحال والكلي والمثانة . وأما بسوذ و بونيون (۱) فهو ثمنس طوله محومن ثلاثة أشبار وينبت فى جزيرة اقريطى ورته كورق بونيون . (جَوَ) وكذلك بسوذ و بونيون . (جَوَ) وكذلك

۱۹۷ – بَرْسياوشلن : هي شعر الجبار وكزبرة البئر . (دَدَ مَ) أذيانطون وقد يسمى فولوطريّخون . ورقها كورق الكزبرة مشقق الأطواف وأغصانها سود صلبة دقاق طولها نحو من شبر . وليس لها ساق ولا زهر

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ولا ثمر. وله أصل لا ينتفع به وينبت في أماكن ظليلة وحيطان المغاثر الندية وعند المياه المجتمعة من سيلان السيون . (جَ وَ) يجفف ويلطف ويحلل ممتدل.

⁽١١) ت: بسوذو بونيمون ، غ: بسودو نونيمون .

⁽٢) ت: بسويه دونيون ، غ: بسو بوذيون .

۱٦٨ - بولوغالن : (ذَ دَ) نبات طول نباته نحومن شبر وورقه كورق العدس عفص . وقيل ان شر به يكثر اللبن . (جَ حَ) ان كان يولد اللبن كما قيل فهو معدل الحرارة والرطو بة .

۱۹۹ – بوقنوقومُر (۱) ؛ (دَ دَ) نبات ورقه كالجرجير أغلظ منه خشر حريف وساقه مربعة وزهره كزهر الباندوج وثمرته كزد الكتراث . وأصله أسود نسه صفرة مستدير مثل تفاحة صغيرة ورائعته كرائعة التراب وبنبت في مواضع صفرية ، (جَحَ) أصله وثمرته وورقه فيها قوة تحليل وجذب للسلى . وثمرته أقوى من ورقه وهما أقوى من الأصل وهو يسهل الصفواء وشهر ذرخى من ثمرته تحدث أحلاما مشوشة .

م ١٧ سـ بسبائيم: (دَ هَ) بولو بوذيون . ينبت في الصخور التي طبيا خضرة وفي ساق شجرة البلوط المتبقة على الأشنة . طولها نحو مر شبر ويشبه النبات المسمى بطارس أى السرخس ٢٠ وعلى أصله شيء من زغب وزغبه مشرف وليس تشريفه بدقيق مثل بطارس والاصل شعب كأربجل السمك المسمى كثير الأرجل وغلظه كفاظ الخنصر واذا حك ظهر لون ما بداخله أخضر . وطعمه عفص مائل الى الحلاوة وهو أجوده . (جَجَ) يجذف بغير لذع . (دَ) (٣)

⁽١) ت: بوقتومون ، غ: بوقوموس ،

 ⁽۲) ها هنا وضع الكلمات نخلوط فى ت ، وفى غ الكلام شوش جدا : ابلا سرخوس طاروس .

⁽٣) قانص في ت وغ ٠

وقد يعطى منه مطبوخا مع بعض العليو روالسمك أو الساق أو الملوخيا فيسهل مرة سوداء وبلغا من غير أن يمض (١) أو يؤذى . (ابن ماسوية) وقد يطبخ بماء الشعير والشربة منه من درهم الى خسة مطبوخا أو منقوعا . (المجومى) أو مدقوقا ناعما مع سكر . (ابن سرابيون) أو مع ماء الشعير وقد يسهل الخلط اللزج المخاطى من المعدة والمفاصل وينثى .

البن وافد) حب صغير على قدر حب الماش منقط بياض وسواد عديم الرائحة يؤتى به من الصين . وهو حار يابس فى الثالثة يسهل العيدان وحب القرع بقوة الشربة منه درهمان .

۱۷۲ — يِرنَكُ كَاللي: (ابن سينا) هو سـندى أو هندى . وهو نوعان صغار غيرمفتتة ^{۲۱} وكبار مفتتة والصفار أفضلها يسهل البلنم والديدان وحب القرع . (لى) أطنه البريج المذكور .

۱۷۳ -- باجروجى : (القالاحة) يرتفع مقالمار ثانثة أذرع وينبت في الأراضى اليابسة الصلبة ورقها كو رق الكاكنج ويورد وردا خفيف الحمرة إذا سقط أخلف حيا بقدد الحمص وأصغر أسود اين . وقد يضمد بثمرها وورقها مع الحل للسلع والثواليل وثمرها يغثى ويقبىء ويضر بقصبة الرئة ولا ينبنى أن يؤكل وورقها ينفى ووقبىء لا يضرب إلا مرة واحدة .

١٧٤ – بُهمَى : (ذَدَ) فونيكس . نبات ورقه كورق الشعير إلا أنه

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أقصر منه وأدق له سنبل كسنبل الشيلم وقضبان طولها نحو من سستة أصابع نابتة حول الأصل سبع سنبلات أو ثماري وينبت في مواضع العارة وعلى الأسطحة

⁽١١ ات: يمنض ء غ يقض .

⁽۲) ت وغشققة

الحُمُدُد التطبين . واذا شرب بشراب قابض قطع الاسهال ونزف اللهم . وقبل اذا شد بصوف مصبوغ بحمرة قانية وعلق على من به نزف اللم قطعه .

۱۷۵ — بلوط الأرض : (ابن عمران) عروق تشبه البلوط تكون تحت الأرض كالبلوطة وتطلع على وجه الأرض ورق عريضأ خضركورق السريس (۱) الصفير. وينبت في الرمال كثيرا ما يكون تحت عروق البشام وطعمه صر بحلاوة كطيم البلوط وفيه حرارة مفتح مدر .

١٧٦ - بالمخته: عشبة تنبت وتنبسط على الأرض أغصانها دقاق جدا وورقها غير دقاق لا يُشبه النصن كأنها دود يتصل أغصانها بعض وتستدير دائرة في الأرض ولها نو يرة بيضاء فيها حمرة غرغرتها تسقط العلق.

١٧٧ - بَسُنه : نبات دقيق له أغصان كثيرة دقاق يخرج من أصل واحد يفترش على الأضحر وهي منابته طولها طول أصبع معقدة كنبات الشرشرة وخضرته تميل الى صفرة وبياض وورقه دقيق مدور كأن عليه زغا رقيقا عليها دبقية كأنها عسل . وله زهر دقيق جدا أبيض يخلفه بزر كحب الكزبرة دقيق في غلف صغار . وفي مذاقه مهارة وقبض يسير . شرب طبيخه يفتح السدود ويذهب النفخ .

۱۷۸ - بكرة (۲۲): حشبة ورقها كورق الكزبرة وأغصانها كثيرة خارجة من أصل واحد مائلة الى البياض ما هى منتئة الرائحـة تنبت بين الزرع وهى تقلع التاليل اذا تضمد بها .

١٧٩ - بَرْ بينه : ويقال مربانه وبالبربرية الخموت وقد يسمى المجنون
 ويقال أنه العظلم . وهو نبات له ورق طويل مشرف صغير فيــه خشونة شديدة

⁽١) ت: الشريس ، غالسيرير ، وابن اليعاد ١ ١١٠ : الشريش ،

⁽⁾ غ: بره ، ابن النيطار: بذذ .

إلخضرة يضرب الى السواد والنبرة وله قضبان مربعة دقاق تعلونحو الذراع ق. أطرافها زهر دقيق نحو زهر الكربرة على طول القضبان . ومن عصنف آخر شهيه بهدذا إلا أنه أكبر ورقا وأغصانا يفترش على الأرض فى نباته وزهره أميل الى. الفرفيرية وماء كلى الصنفين إذا شرب قياً بلغما لزجا وهو منوم وينفع من الغشى .

١٨٠ - بشام : أوردناه مع البلسان .

ا ۱۸۱ - بيش (۱): قيل أنه يسمى بالمجمية نباله وباليونانيسة: طقسقون وقيل أنه ينبت بالمهين ببله يقال له هلاهل قوب السند. وهو نبات يملونحو الذراع وعليه ورق كورق الهنسدبا يأكلها أهل هلاهل غضا؛ ويابسا . فاذا بعد عن السند مائة ذراع قتل آكله جميع الحيوان الا الفار والسلوى.. (ابن سينا) حاريابس في الغاية لهب البرص طلاء وكذلك اذا شرب معجونا يقم فيه وكذلك ينفع من الجذام وشرب نصف درهم منسه وأقل يقتل . وترياقه فارة. البيش وهي الفارة التي تغتيذي والسافي أيضاً يغتذي به ودواء المسك أيضاً

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ان من تماب الصيدلة في العلب لمحمد بن أحمد الهيروني (من النسخة الخطية المحفوظة في دار الكتب.
 في يرومه (أناطولو) •

بيش : يسمى بالمنسدية بش منبته بأرض الهند فى جبال كشمير واسم الجبل الذى ينبت عليسه شسسنكر يستاجن فى حد كرناوه من أدشتان تصبة كشمير البه تمانون كروة أى أميالا وارتفاع الجبسسل. الانة أسيال وشربتسه الغاتمة نصف مقال ، وفى الكتب أس السهافى يأكله ويسمو. عليه ، (قال حيش) يا كله فاوه والسلوى كأنه شىء آخر عبر عه بالميش فان البيش يشبه السعد وأفواعه أسماء طبقات الهند وهى كالهر ومنكن وشرئك وهلاهل ، فكالمر هو بيش أخضر ومنكن وهو شودرأسود وشرئك وهو برهمن أبيض قال ، وهلاهل وهى كشتر أصفر - قبل أوساء قتلا بوزن شعيرة هو كالكوث أسود المكسر صلب وصفه الى البياض ما هو ذر ثلاثة قرون ، وقبل أن البرهمن الأبيض يقتل مه دانق ، و بيش سلو صلب غير مكنز الى الحمرة يقتل منه دانقان وكشتر بين البياض والسواد صلب ووسط مكسره .

يقاومه . (المسعودى) أصناف البيش ثلاثة أولما يسمى رسيس أى رأس التتين وهو البرهمي الأبيض يفسخ على الممكان . والثانى يسمى القرون توجد فى سنبل العليب عوده دقيق بقدر نصف أصبع عليه تقط بيض صغار كأنها تشيق الطالق أو الكافور . والشائث يسمى التقه يصاب فى سلبل العليب أيضا . طوله عقد أصبع كأنه أصل القصب الفارسي معقد . وهو خبيث ويسيق منه يخل المسعة المقرب قدر سمسمة (١١) .

و (قال قسطا) هو أدرى السيوم نتلا حتى ان رائحته ربحاً تصرع و يعلى حصير رطبه مل النصول فقتل .
وهو تلائة الوان كلها قاتلة وأدط الميرهم الأبيض أخباً غاتلة بضخ و يتخل مل المكان ، والثانى يشبه
القوون يوجد فى سنبل الطبب عود كشمف أصبع دقيق مقط بنقط بيض معاو كسميق العلق لهجيمس
والثالث يصاب فى السنبل الطبب عود قسدر أصبع مثل القصب الفارسي عقد عقد وليس البيش مع السنبل
عباوزة وما ذكر هي السعوم على حدة درن البيش ، وقال (بشر الجنزي) هو جمسة أنواع وأوساها تمسلا
الحلمل و يوجد فى السنبل شميه العنبر ، يقتل مت و زن خردة حور بما كتل ريحه ولا ينفع فيه الترياق ،
وأكثر ما يوجد فى السنبل الازب وجوما كان فيه مسوادو بياض ، قال (ابن مندويه كلا كوت يشبه
السعد ، وقال قوم فيه أنه يسجل القتل و برا يا ينول برأس قناة فيضروقل ما يقيم مه الى بلاد الاسسلام،

والذي يسم بدالثياب يسمى كلكل يخيطها الخياط مثلث الأصابع .

وذكر بعض المذود أن هلاهل وكالكوت اسمان لمسمى واحد وهوفوع من البيش آسوه الم الزنجازية والبرهن الأبيض اسلها ويشبه الوج وبه يقع التداوى - ثم يخط اللون هن البياض و يزداد الشرائي اثن يكون شودر الأسود المكسر شرها ، وكما كان أسمن واقل غصونا ويشتمها فهو أشد صحلاو شرا - أوناته في السق ما قارب طلوع الشمس الى فسف النهار ، وقيل في الحلهل إنه يشبه القسط وفسله ا يكوه فواق القسط ، ومنه نوع يسمى شرنك أي السمني لشبه به ومنيته في جبل يسمى كالمدهار من حدود كمشمير المتعلة بو بهند ، وقالت العيادلة يوجد مه في هلاوش وفي القسط وكذاك في كروة و يعثر عليه بأسب يتم في الماء فرسب الميش و يطفو كرده .

⁽۱) ت: قرتالنون .

ليفوذاندون أى الشجر الجوى ويقال إنه نبات بحرى ينبت في جوف البحر و إنه ليفوذاندون أى الشجر الجوى ويقال إنه نبات بحرى ينبت في جوف البحر و إنه إذا خرج من البحر ولقيه الهواء اشتد وتصلب . وقد يوجد كثيرا في الجبل المسمى باخونون الذى عند مدينة سُوراقوسا(٢). وأجوده الأحمر الشبيه بالجوهم المسمى سيريقون وقد قبل إنه يشبه بلون الاسرنج أو بالمشبع اللون من الجوهم المسمى سندقس وهو فيا قبل الزنجفر سريم الانفراك في جميع أجزائه متساوى الأجزاء راعته كرائحة الطحلب البحرى كثير الأغصار في جميع أجزائه متساوى الأجزاء والمجبري الزخو ردى . قوته قابضة مبردة باعتدال جالية تنفع نفعا بينا من نفث اللم . ومنه صنف آخر أسود في شكل الشجرة أكثر أغصانا من الأول ورائحته أشد من رائحته . وقوته كقوته محرقة وتقطع الدمعة وتفرح القلب تنفع الطرش المشار في الأذن مع دهن البلسان .

البورق صنوف كثيرة منه الأرمني اللحق) البورق صنوف كثيرة منه الأرمني الذي يؤتى به من أرميلية ومنه المسمى نطرون ويؤتى به من الواحات وهو ضربال أحمر وأبيض ويشبه الملح المعدنى ومذاقه بين الحموضة والملوحة . (ابن وافد) البورق أنواع كثيرة ومعادنه كثيرة فمنه ما يكون جاريا ثم يتحجر ومنه ما يكون في معدنه حجرا ومنه أحمر ومنه أبيض وأغبر وألواناً كثيرة . والنطرون و إن كان من جنس البورق فان له أفاعيل غير أفاعيل البورق . (الرازى) أصنافه كثيرة منه ورق الصاغة وهو الأبيض السبخي ومنه الزبدي وهو أجودها كلها ولونه ترابى أغبر ومنه بورق الغرب وهو يكون في شجر الغرب . (فَدَ مَ) نيطرون . يجب أن يغتار منه الخليف الوردى اللون والأبيض المثبت كأنه اسفنجة . وأما المسمى افرونيطرون ومعناه زَبد التطرون وهو كما قيل الأرمني فاجوده الخفيف ذوالصفائح المسريع التفتت الفرقرى اللون الشبيه بالزبد اللذاع مثل الذي يؤتى به من مدينة المسريع التفتت الفرقرى اللون الشبيه بالزبد اللذاع مثل الذي يؤتى به من مدينة

⁽۱) ت و غ: كورانوسا .

⁽۲، ت و غ : سقيدس .

فيلادَلْفيا وبعدها في الجلودة المصرى وقد يكون أيضا بالموضع المسمى ماغْييسيا من بلاد قاريا . (جَ طَ) الفرق بين البورق الأبيض والافريق المعروف بالزيدى وبين زبد البورق ان زبد البورق مجفّف ومنظره كمنظر دقيق الحنطة أبيض وليس هو مثل زهر الحجر المجلوب من اسوس (۱۱) رمادى اللورن. . وأما البورق الزبدى فليس كالدقيق منخلا بل جامد يجتمع وهو الذي يستعمله الناس في كل

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يوم ليفسلوا به ابدانهم في الحمام وقوته ليست تجلو الوسخ فقط بل تحال أيضا الرطو بات الصديدة المحدثة للحكة ولولا أنه يغثى ويهيج التى الكنان بالغافى تقطيع الاخلاط اللزجة وكان انسان يبرئ به من أكل القُطْر . (غيره) البورق صنفان غلوق ومصرى . والأرمى أجود علوق ومصنوع والمخلوق هو المعدني وهو صنفان أرمني ومصرى . والأرمني أجود ولم نه ونامحه الى الملوحة فيه مرارة يسيرة تمل على شدة احتراقه . وضرب منه يعرف بورق الحبرة الخباذين بمصريحاتونه بلكه وينسلون ظاهر الخبرقبل خبزه يحكسه بريقا . ودونها البورق المصنوع وهو المسمى عندنا النطوون وهو ملح عجرى قطاع جبري متولد من مادة الزجاج ورطوبة الرصاص والفلى إذا خلط الزجاجون بعضه بعض وأدخاوه النار وهو يسمى أيضا لله التنكار " (٢) .

4 1 1 - يُصاقى القمر . ويسمى أيضا رغوة القمر وزَبدالقمر: (ذَهَ) ليس سالينطيس أى حجر القمر وقد يسمى أبوسالينون أى رغوة القمر . سمى بذلك لأنه يوجد بالليل فى زيادة نور القمر أجوده الأبيض المشقى الخفيف الكائن فى بلاد العرب . وقد يمك و يستى ما ينحل منه لمن يله صَرع وقد يابسه النساء مكان التمويذ وتعليقه على الشجر يولد فيها المثر . (جَ طَ) قد وثق الناس به انه ينفع من الصرع واما نحن فلم تمتحن ذلك ولم تخبره .

⁽۱) ت وغ تانسوس ،

⁽٢) هذه الكلبة ناتعية من ت و ذ .

ينفع من السموم الحارة والباردة شربا وتعليقا . ومعادنه بالصين والهنسد والمشرق وله في شبهه أحجار كثيرة لهست لهما خاصيتُه كالقبورى (۱) والمرمر حجر لا يخطو منه شيئا وقد يخالط به كثيرا . وهو حجر نفيس لين الحبسه لينا غير مفرط دقيق المداهب في غاية النفع من السموم الحيوانية والنباتية ومن غض الهوام والمنعها ونهشها . إذا شرب منه مسحوقا منخولا وزن اثنتي عشرة شعيرة خلص من الموت ولو وضع في فم المسموم ومضفه نفعه . (ابن جلبل) هو حجر إلى الصفرة وفيه عند الملوك الأجلاء . (الوازى) هو حجر أصفر رخو لا طعم له رأيت منه مقامة عبية في دفع ضرر البيش وكان المجر الذي رأيته إلى الصفرة والبياض في لون الخر وكان مع ذلك منشظيا كشظايا الشبّ . (عطارد بن عهد) حجر البادزَهم المذوّ والمياض عرقه . (غيره) ألوانه كثيرة أغير وأصفر ومشرب شيء من الحضرة ومشرب بياض ومنكتُ . وأجوده الأصفر الصفرة ومشرب شيء من الحضرة ومشرب بياض ومنكتُ . وأجوده الأصفر الصافي ثم الأغير .

۱۸۹ " - بِرَادِى : (۲) هــو البجادي أيضا . (كتاب الأحجار) معادنه بالمشرق و إذا أخرج من معدنه كان مظلما عديم الشماع فاذا قطمــه الصانع حرج حسنه وله بريق ومن تخميمً

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بوزن عشرين شميرة منه لم ير أحلاما رديئة ومن استقبل شماع الشمس وأدَّمَن النظر في هذا الحجر نقص نور عينيه . وأجوده ما اشتدت حمرته وكثر بربقه وإذا مسح بشعر الرأس لفط من الأرض السفا والتين الصنار .

⁽۱) ت: القررى ٤ غ: القررات -

⁽۲) ت و غ: برادی ۰

المدور المعادر منه الشهيه بلون القيسور وكان رخوا خفيفا سريع التفتت غيد عروق غائرة صفر. واما زهر هذا المجر فهو ملح يتكون عليه دقيق ومنه أبيض ومنه قيسورى اللون إلى الصفرة وهو يلذع اللسان يسيرا . (جَ طَ) يسمى هذا المجر آسيوس وليس هدو صلبا الآنه يشبه في لونه وقوامه الحجارة المتوادة في قدور المجامات . ويتكون عليه شيء كغبار حيطان الرحا ويسمى هذا الدواء زهر المجر المهاوب من اسيوس وهو الصخرة التي فيها تتولد هذه الزهرة وملوحتها تدل بالحدس المهاوب من الميوس وهو الصخرة التي فيها تتولد هذه الزهرة وملوحتها تدل بالحدس . المهاوب من المجر و زهره معفنة عللة للتراجات (٢) مع صمن البحر ثم تجففه الشمس . (ذ) فوة هذا المجر و زهره معفنة عللة للتراجات (٢) مع صمن البحر ثم أو الزفت والزهرة أفوى من المجر وأفضل في ابراء القروح المتيقة والنقرس . وإذا ذر في حمام على الأبدان السمينة مكان النطرون أصفرها . (ابن رضواف) يقوى البصر ويجلو البياض .

اللبجاج. فلسنا نحتاج معه إلى فيره. ومزاجه أبرد قليلا من البدن المعتدل وبحق اللبجاج. فلسنا نحتاج معه إلى فيره. ومزاجه أبرد قليلا من البدن المعتدل وبحق ف تجفيفا لا الذع معه. (ذَ بَ) الصلب أكثر غذاء من النيمترشت وهدو من الرقيق . واما فيره) الأفضل بعد بيض الدجاج بيضى التذريج والدراج والقبج والطبيوج. واما بيض البط فردى الخلط وأيس البيض بيض الأوز والمنحام وجميع البيضى يزيد في الباه لا سيا بيض الحصافير وهو كثير الغذاء وخاصة بيض الحمام المقوى (١٢) سريط وبيض الحمام المقوى في مدريط وبيض الحمارى خضاب جيد الشعر وبيض الصلحفلة الحرية نافع جدا السعال العميان والصرع وبيض الحرباء سم قاتل .

⁽۱) ت ره: بارزد ۰

⁽٢) ت و ة : الجرأحات •

⁽۳) ت ر غ: القرى ٠

١٨٩ - بصاق : (جَنَ) بصاق الممتلىء من الطعام أضعف من بصاق الحائم . والبصاق كله عامة ضد الحيوانات القاتلة للانسان بلسمها ونهشها عامة وهو يقتل المقرب .

م 1 ٩ - بول : (ج تن) قوة البول حادة حارة فيه جلاء كثير. وبول الانسان أضعف من بول سائر الحيوان ما خلا بول الخنزير الخصى فانه مثله فى ضعفه. والاغتسال بالبول ينتى التمشّ ويذهب الحزاز ويشفى السَّعْفة وقوم شربوا بول الصبيان الأطفال وأبوال الرجال فنجوا من أمراض و بائية . وأبوال الدواب تفلط بأدوية وجع المفاصل فتنفع . (ذَبّ) بول الانسان إذا شربه صاحبه وافق نهشة الأفنى والأدوية القتالة وابتداء الحبن والبول العتبق فهو أشد جلاء من الحديث للقروح الرطبة العارضة فى الرأس والحزاز والحرب والجدرى . وبع الأذن تقطيرا و بول الخزير يفتت حصاة المثانة . وبول الحيوات المسمى لونغوس (١) و بوله يسمى أنغوريون ويقال إنه وبول الحيوات المسمى لونغوس (١) و بوله يسمى أنغوريون ويقال إنه وبول الميوات المسمى لونغوس (١) و بوله يسمى أنغوريون ويقال إنه وبول الميوات المسمى لونغوس (١) و بوله يسمى أنغوريون ويقال إنه وبول الميوات المسمى لونغوس (١) و بوله يسمى أنغوريون ويقال إنه وبول الميوات المسمى لونغوس (١) وبوله يسمى أنغوريون ويقال إنه باطل . وإذا شرب مع الماء نفع

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الممدة وقروح الأمعاء و بول الحسار يبرئ من وجع الكلى . (غيره) بول الجمل شديد النفع من الخشم الأنه يفتح سُدد المصنى بقوة شديدة وهو مع بول الانسان نافع من الاستسقاء و يطلى بهما الطحال . وإذا عقد بول الصبيان في إناء نحاس نفع من البياض والحرب في العين وإذا انعقد بول الكلب سود الشعر حسنا . والسكران أذا شرب بول جمل أفاق من ساعته . (ابن سينا) أن رجلا مطحولا رأى في النوم أنه أمر بشرب بوله ثلاث مهات كل يوم ففعل ذلك وعُوفي وجرّب في غيره فوجد عجيها .

⁽۱) ت: ايونوس ٤ غ: الفوفو س -

ا ١ ٩ ١ — بول الإبل : هى أفراص يؤتى بها من أين وتُباع بالموسم بحكّ يُمالج بها الجواحات الطرية بدمها فيلتصق بها ولا يقلع حتى يبرأ . وهو معروف عندهم مشهور . وتذكر أهل النين أن إلمهم ترعى فى فصل السنة حشيشا يكونه هناك خاصة فى ذلك الوقت فيأخذون أبوالها عند ذلك فيجففونها ويقرصونها وإنما يكون هذا بالين فقط .

۱۹۲ — بنت وَرْدان : هي الصراصِر من الحاوى . (ذَ بَ) سيلْفِي . جَوفها اذا سحق بزيت وإذا طبخ بزيت وقُطَر في الأذن سكّن وجعها (غيره) بنات وردان قوية التعليل مُدرة تسقط الأجنّه تنفع من النافض وسموم الهوام والبواسير ووجع الأرحام والكلى .

حرف الجيم

العفص مهل المكسر دقيق القشر طيب الرائحة . (ابن سينا) هو جوزنى قدر العفص مهل المكسر دقيق القشر طيب الرائحة . (اسحق بن عمران) يؤتى به من الهند وأجوده الثقيل الرزين الدمم الأمر . (غيره) طعمه كطعم القرنفل حاز يابسى فى الشائنية يقوى البصر ويذهب البخر ويهضم الطحام ويقوى الكبد والطحال . وأما البسياسة فهى من قشر جوزبوا الرفيق الذى فوق القشر الغليظ وأجودها الحمراء وأدناها السوداء وهى قشور متراكمة دقاق يابسة الى حمرة وصفرة عملة للنفخ .

١٩٤ - مُجلنار . وهو الرّمان الذكر ويسمى بالعربية المَظّ : (ذَ آ) بالاوسطيون أصنافه كثيرة منه أبيض ومورد أحمر وخلقته كورد الرمان . وتستخرج عصارته كمصاوة الهَيُوفُقِسْطيذاس وهو قابض يصلح لكل ما يصلح له ذاك . (جّ وَ) الجلّنار وهو زهر الرّمان البّرى طعمه قوى القبض وقوته تجفّف وتبرد .

١٩٥ — جوز الزَيْم : هو ثمر فى قدر التفاح الى الطول قليلا مزوَّى منسج فى داخله حبَّ صغير كالقاقلة الصغيرة مدحج أصهب اللون حريّف الطم ينحو الى مذاق الخولتُجان طيب الرائحة يجلب من صحارى البربر . وشرب دانق منه بماء حارينه من القولنج الريمى .

۱۹۶ — جوز الشَّرْكِ^(۱) : وهو جوز الحبشــة وهو فى قدر جوز الأكل إلا أنه أطول قليلا وطرفاه محددان كأنه شكل مَا صغر من أصــول

⁽١) ٿو ءَجوزالشوك .

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الجوارشات(١) المسخنة والذي يؤتى به من بلاد البر بردون هذا .

الم ١٩٧ - جُونِ : (جَ زَ) القيض في قشره الخارج وهو طرى ليز وعصارته دواء ينفع من أدواء القم والخنجرة . والجلوز نفسه للطاقته ودها تنه يسرع الاستحالة الى المرار وخاصة ما عنق منه . (دَ آ) قاريا باسليقا . صدر الهضم ردى الممدة يولد المرار الأصفر ومع التين اليابس والسذاب بأذرهم من الأدوية المقالة قبل وبعد . والجوز الرطب أقل ضررا للمدة وهو أعذب وأحلى ولذلك يخلط بالثوم لميكسر حراقته .

۱۹۸ — جِلَّوْز . وهو البُندُى : (دَآ) قاريا فونطيقا . ضارّ للمدة واذا سحق وشرب بمـاء وعسل أبرأ من السعال . (جَزَ) جلس من الجاوز صغار فيه الجوهر الأرضى البارد أكثر ما في الجوز الكبار . (فيره) يغذو الدماغ ويولّد الرياح. في البطن الأسفل .

١٩٩ - جُميز: يسمى به التين الذكر ويسمى به صنف آخر من التين. (ذَ آ) سيقومورون أى التين الأحق (٢) و إنما سمى يهذا الاسم الأنه ضعيف الطعم وهى شجرة كشجرة التين بها لين كثير جدا ورقها كورق التوت وتقر الاث مهات أو أربع فى السنة وليس يخرج ثمرها من فروع الأخصان كما يخرجه ثمر التين بل من سوقها كما يخرج التين للبرى وهو أحل من التين الفيج وليس فيه بند فى عظم بزدالتين. وليس ينضع دون أن يشمى بخبل مرس حديد. وسنبت كثيرا فى بلاد قلريا

۱۱) ت و ذ ، جوارطات .

⁽٢) ٿرءَ: اُجِرِ،

• ووذوس وفى المواضع التى تكثر فيها الحنطة . وقسد ينتفع بثره فى سن إلجلنب لوجوده فى كل وقت وهو يسهل ردى للعدة واللبن المستخرج من ثمرته فى الربيع يلزق الجراح محلل للاورام . وقد يكون فى جزيرة قو بروس ثمر فى عظم الإجاص وهو أحلى منه يشبه الجميز فى سائر الإشياء .

٢٠٠ - جُوْدُر: (ابن جلجل) شجرة لا ارتفاع لها أغصانها حمر وهى غليظة الأصل ورقها كورق الكثرى البرى وله ثمر مدقر أغبر اللون يؤكل فيقوى البطة وهذا النبات كثير بالزاب فى ناحية القيروان. (لى) هــذه الشجرة معروفة ببلاد البربر بهــذا الاسم و يستعملون جلده فى دباغ الجلود. وقال ابن جلجل إنه النبيرًا وليس بها.

۲۰۱ - جاورش: (ابن واقد) هو صنف من الدُّخن صغیر الحب شدید القبض أغبر اللون. (ذَبَ) قَنْخُوُوس. هو أقل غذاء من سائر الحبوب يعقل البطن ويدر البول. (جَ زَ) يبرد في الأولى و يجفّف في أول الثالثة وفي آخر الثانية. اذا كد به في كيس صار أفقم من المغص.

٧٠ ٣ - جرجير : (الفلاحة) الجربير صنفان بستانى و برى وكل واحد منهما صنفان . فأحد صنفى البستانى عريض الورق فستنى اللون ناقص الحرافة رخص طيب والثانى ورقه رقاق فيها تشريف ودخول فى جوانبها كثير شديد الحرافة وأحد صنفى البرى ورقه كورق الخودل شديد الحرافة يجمع فى حزيران . (فيره) الجرجير البرى هو الأيمقان وهو صنفان أحدهما الحرشاء ويسميه بعضهم خودلا بريا وهى شجرة تقوم على ماق خضراء ورقها كورق الفجل حرش ونوره صنهر أصفر عنم يخلف الحب فى غلف (1) طوال وهى شديدة الحرافة يؤكل مع البقل والصنف الآخرله زهر أحمر . (أبو حنيفة) الأيمقان هو الجرجير البرى وهو عشبة تعلول فى الشتاء ولها وردة حراء وورق عريض يؤكل وفيه مرادة . (ذبّ)

 ⁽١) هذه الكلمة قاتصة في ت ، وفي غ : قضبان وهذا غلط من النساخ .

أوزومون ادمان أكله يحرك شهوة الجماع و بزره كذلك يدر البول ويهضم الطعام و يلين البطن . وقد يكون أيضا جرجير برى في غربي بلاد الخَـزَر (١١) ويستعمل أهلها بزره مكان الخردل . وهو أشد إدرارا للبول وأشد حرافة من البستاني .

٣٠ ٣ - جُعْفيل : (٢) يسمى حشيشة الأسد وأسد العدس وخانق الكرسنة لانه إذا نبت بين الورس والكرسنة جَفْفهما . (ذَبَ) أُورُوفَفْيحى (٣) أَى خانق الكرسنة سمى بذلك لأنه إذا نبت بين الحبوب أفسد ما قاربه . وقد يسمى قونومُور يون وأهل قبرس يسمونه ثورسيني . وهو قضيب مائل إلى الحمرة طوله نحو من شعرين ربما كان أطول وله ورق فيه لزوجة وطيه زغب غضّ ولون زهره الى البياض ما هو والى الصغرة وظلا أصله كظلا الأصبع ينبت فى أوان يُس الصيف . قد يسلق و يؤكل مثل الهليون ونياً أيضا . ويظن به أنه إذا ألتى بين الحبوب أسرع نضيجها عند الطبخ . (جَحَ) يخفف و يبرد فى الثانية .

و ٧ - جَنْطيانا : (اسحق بن عمران) الجنطيانا صنف هو شجرة تنهت فى الجبال وفى المواضع الباردة الندية الناجية وهو الروى وصنف هو المرئمةانى وهو كَمْمَاض البقر وعِرقه اسود فيه شيء من مرارة وينهت أيضا فى المواضع الندية (لى) الجنطيانا الذى ذكرها ذيوسقوريذس هى الصنف النانى من هذين والأول هو المستممل صندنا بالإندلس أكثر من الآخر ويكون فى جبل شلير (١) وفى جهة مَرَقُسْطَه وهو أصل شديد المرارة وهو أشد مراوة من الصنف من الجنطيانا مراوة من الصنف من الجلطيانا المناسعية كوشاذ و بالومى بَسِلسقان (١) وبجمية الإندلس

⁽١) في نص ابن البيطار : الخوز .

⁽۲) ث: حيثل ٠

⁽٢) ء: أزررقحي ٠

⁽١٤) ت: شکير، ١٤ : شير. •

⁽٥) ت : طيفان ، خ : طقسان ٠

بَشِيْشَكَهُ . وزعم ابن وافد آن الهشلشكه هي الجنطيانا الذي ذكرها ديوسقور يذس وأخطأ في ذلك . (ذَ جَ) جُنطياني . يقال إن أول من عرف هذا الدواء جنطيس ملك الروس وآن اسم هذا الدواء اشتق من اسمه . وهو نبات ورقه فيما يلي أصله يشبه ورق الجوز أو ورق لسان الحَمَل ولونه الى حرة الدم والذي على الوسط والطرف من الورق مشرف تشريفا يسيرا وخاصّة فيما يلي الطرف . وله ساق جوفاء ملساء في غلظ الأصبع في طول زراعين ذات عقد والورق متباعدً بعضه من بعض عليما نور كثير وله ثمر في الحاع عريض خفيف كُثمر شُفَنْدوليون (١١) وله أصل طويل غليظ شبيه بالزراويد وينبت في الجال الشامخة وفي الأفياء وفي أماكن المياه . في أصله قوى التنفيذ والجلد، وتفتيح السدد وليس هذا منه

بَعَجَب إذ كان فى غاية المراوة (نَـ) مقدار دَرْخمى منه مع فلفل وسذاب ينفع من. نهش الهوام ووجع الجذب والكبد والممدة وفرزَجته تخزج الجدين .

و ۲۰ و حَدُوار: (ابن سينا) هو قطع تشبه الزراوند وأدق منه ينبت مع الييس وهو ترياق السموم كلها. (ابن الكتّآنى وغيره من المحدثين) قالوا إنه الانتّگة والبيش للذى ينبت معها هى الطوارة وهى أصول كالبلّوط الصغير ينفع من السموم والقولنج، وينبت معها الطوارة وهى سم قاتل وحى (٢) و يتقارب نباتهما ستى يراهما الانسان فيظن أنهما من أصل واحد لشدة تقار بهما . وهذه الحشيشة السمية حُلوةً والانتلة مُرةً وهى درياق عجيب يقوم مقام درياق الفاروق . وربما رعت بعض الانتلة تعنطمت من . (آل) الانتله عندنا ضربان ضرب يعرف الانتله السوداء وهى التى ذكروا أنها الجلدوار والانترى هى البيضاء و يسميا بعض الشجارين الفيهق وسنذكرها فى حق الفاء

١١) ت: ستفلدوليون .

⁽٢) كذا في ت ، وفي ه : يأبي .

فأما السموداء فهى مدورة وخارجها أسود وداخلها أبيض الى الصفرة وورقها كورق كزبرة الثعلب وينبت معمه الطوارة وهي تشميه به إلا أنها أميل الى الشربة .

٣ . ٧ - جاوَشير : (ذَجَ) فاناقاس إيرَ قيون (١) كثيرا ما ينبت في بلاد بواطيا ومدينة فْسُوفِيس (٢) من بلاد ارقاذيا ويُغرس في البسساتين للغلَّة الحاصلة من صمنها . ولها و رق خشن قريب من الأرض شديد الخضرة كو رق النين مستدير مشرف ذو خمس شُرَف . وساقها كالكَلَخَ طويلة وطيها زغب شبيه بالغبار أبيض وورق صنارجدا . و يزر طيب الرائحــة حاد وله عروق كثيرة متشعبة من أصل واحد بيض تنيلة الرائحة عليها قشر غليظ مُن الطعم وقد ينبت في قوريني (٣) من يلاد ليبوى وفي ماقذونيا . وقد يستخرج صنع هــذا النبات بأن يشقق الأصلي في حدثان ظهور النيات ولون الصمغة أبيض فاذا جفت كان ظاهرها زعفرانيا. يُشقق أيضا الساق في أيام الحصاد ويجع ما يسيل من الصمغة على ما وصفناه . وأجود الصمغة أشدها مرارة وباطنها أبيص وظاهرها زعفراني يدبق باليدهين الانفراك و إذا ذيف انحل سريعا ثقيل الرائحة وقد ينش بوشَقَ وموم ويُتحن بأن يدلك في المـــاء بالأصابع فان الخالص منه يندَاف ويصير كاللين . وقوَّتها مُسخنة ملطفة مُلِّينة (ج ح) أصل نبات الجاوشير يخفّف ويسخّن لكن أقل من الجاوشير تفسه . وفيــه جلاء وخصال بمتال اليها الدواء المنبت للحم في الخراجات . وثمرته حارّة تدرّ الطمث .

⁽۱) ٿوءَ ۽ اُم قلون ،

⁽٢) ت: فوقتى ٤ غ: فوقس ٠

⁽٣) ت رغ: مرقى ، ابن البيطار: موقا -

الجزر البستانى منه أحمر وهو أعلظ وأحشن . فاما الجزر البستانى منه أحمر وهو أرطب وأطيب طعما ومنه أصفر وهو أغلظ وأخشن . فاما الجزر فانه ينبت بقرب المياه وربما يبت في القفار وذلك قليل فهو يشبه البستانى . (ذَ جَ) سطّافيلينوس . نبات وورقه كورق الشاهترج الا انه أعرض منه وطعمه الى المرارة ما هو وله نبات مستوحاة عليه اكليل كاكايل الشبث فيه زهر أبيض وفي وسط الزهر شيء يُشبه القطن لونه فرفيرى . وله أصل في غلظ الأصبح

27 v.

نحو من شبر طيب الرائحة يوكل مطبوطا . (ج و) الجزر البرى يؤكل أقلّ ما (الج و) الجزر البرى يؤكل أقلّ ما (الله يزرع منه في البساتين وهو أقوى من البستاني وقوتهما فالحة تحديث شهوة الجماع و بزر البرى مدر تحدر للطمث . (الفلاحة) يتخذ منه شرابا يسكر والاكثار منه يختق لمضرته بالحلق والصدر . والجدزر البرى يطود الهوام تعليقا على باب المنزل .

١٠٠٨ - جُعْدة : (ذَ جَ) فوليون . منه جبل يسمى طاوريون وهو الذى نستعمله . وهو ثمنس صغير أبيض دقيق الورق طوله نحو من شبر وهو ملائل من البزر وعلى رأسه طرف صغير الى الاستدارة ما هو شبيه بالشعرة البيضاء . وهو نبات ثقيل الرائحة مع شيء منطيب ومنه صنف ثان وهو أعظم من هذا وأضعف رائحة . (ج ح) في مذاقها مرارة وحدة يسيرة وهي تفتح السدود وتدر البول وتحدر الطمث وتدمل الضربات الكبار خاصة النوع الاكبر . وأما الأبيض فهو أطغ في شفاء القروح الرديئة . (ذ) طبيخ النوعين ينفع من نهش الحوام والاستسقاء والبوقان و باخل للطحال .

⁽۱) ت و غ ؛ يؤكل ما .

٢٠٩ --- جُمْسِيْرَمَ : صنف من الرياحين يشبه القيصوم . (ابن سينا)
 مفتح مسكن للنفخ قوته كقوة الشيح .

١١٠ - جُبْرَه: يسمى بالمجمية أو نِذَباجه أى جامع البَضْع. (ذَ دَ) أولسطيون. يستأنف كونه فى كل سسنة طوله ثلاثة أصابع أو أدبع وله ودق وقضبان كورق وقضبان قُور نُو بسُ(١) أو الثيل قابضة. وأصله دقيق جدا كالشعر أبيسض رائحته كرائحة الشراب وينهت فى تلالي. (جَ زَ) (٢) مجفف قابض يسمة بالشراب لفسخ العضل.

١١٧ — جار النهر: (ذ د) فوطائوغيطون. سمى بذلك لأنه ينبت بقرب الإنهار والآجام. ورقه كورق الساق يظهر على الماء وعليه زغب. (جَحَ) ير"د و يقبض ويوانق الحكة والقروح الخبيئة والعنيقة .

٢١٢ - جَبْلَهَنْك : (ذَ دَ) سيسامُو يداس و يُ مِنْيه الذين بالطيقُودا خَرْبَقاً وُيشبه ايدينارون (٢) والسذاب وله ورق طويل وزهر أبيض وأصلل لا ينتفع به و بزره كالسمسم مُر الطعم (جَ حَ) هذا شهيه بالخربق . (ذَ) . شرب نصف أُكُوه و افَى الله عنه بره مدقوقا ناهما مع ماليقراطُن يُقيءُ بلغا ومتة . وأما سيسامو يداس الصغير فهو نبات له قضبان طولحا نحو من شهر ورقه كورق تُوونوبُس إلّا أنه أخشن منه وأصغر . في أطراف القضبان رؤوس الى لون الفرفيرية وسطها أبيض فيه بزر كالسمسم لونه أحمر ياقوتي وله أصل دقيق . (أبو جريج) الجبلهنك صنفان أحمر وأصفر وهو بزر كالسمسم يقء بقوة شديدة . (الوارى في المبنصورى) حار رب عكل شاربه من شدة القء . و (في الأغذية)

⁽۱) ت: تورنوس ه

⁽٢) ټوغنو ه

⁽٣) ٿو ءَ: اُورينارون .

⁽٤) ت: أكسوبافن ، غأكسوبانن .

آد يحدث عن أكل السمك الذى مأواه الآجام الذى ينبت فيها إلجبلهنك ق.م عنيف مغرط. (مجهول) وقد يكون نبات آخريسمى الجبلهنك فى الآجام ويشبه. البردى وقشره هو التربد الأسود وينبت بالهند وبالصعيد(١١ لكن الهندى أجود. وفي شرب درهم منه خطريق ويسل وبعضهم كان يبرى به المفلوج.

۲۱۳ - جاسوس : منهم من يسميه جبلهنك لقر به منه قوة وطبعا.
 (ذَ دَ) ميقون أفروذيس ومعناه الخشخاش الزبدى الأنه أبيض كالزبد وقد يسمى.
 إيرقليا . طول ساقه نحو من شبر وورقه صغير

28 r.

جدا لشبهه بورق أسطرثيون عند الورق ثمر أبيض . وهذا النبات كله أبيض. ساقه وورقه وثمره كالزبد وأصله دقيق . وأُ كُسُو بافُن منه بمَالْيقراطن يقيء خاصة. المصرومين . (جَ زَ) برره يسهل البلغم .

لله ٢١٤ - جلبوب : هو لبلاب صغير . (ذَ دَ) لينوزوسطيس وقد. يسمى بَرْتانيون وعشبة عُطايد . وهو نبلت ورقه كورق الباذروج إلا أنه أصغر منه مائل الى ورق اللبلاب وأغصانه ذات عقد فيها شعب كثيرة . وهو صنفان أنثى. وذكر والأنتى منه ثمرها كالمناقيد كثيفة والذكر ورقه صفار وثمره صغيرة مستديرة مركبة بعضها ببعض حبتين حبتين شبيهة بالانثيين وطول النبات نحو من شبر . (جَ ذَ) فيمن عليه كلى الصنفين مسهل مرة ورطو بة واذا أحتملت المرأة وشرب الذكر منهما حبلت بذكر والأنثى تميل بالأنثى .

٧١٥ - جُلْبان : (ابن جلجل) هو من القطانى الماكولة له قصب مربعة ساقطة تنبسط على الأرض وله ورق حوالى القضيان الى الطول متحنية على القصب وله انوار الى الحمرة تخلفه مراود فيها حبّ مدوّر الى البياض وليس.

⁽١) كذا نى ت و غ ، ولكن الصحيح : بالصغد .

يصحيح الندو يرسلو يؤكل نيئا فى الربيح ثم يجف فيطبخ وهو حب كثير الرياح .
ومنته اذا رقد فيه أبطل حركة الراقد عليه لأن له خاصية مضرة بالمصب اضرارا كثيرا وقد رأينا من بطل منه مسيه ثم لم يعد صحيحا . (الراذى) بارد يابس قليل الفذاء رديئه يولد السوداء مضر بالمصب . (لَى) ومن الجلبان صنف كبير من لا يؤكل الا مطبوط وقد يسمى البسيلة (١) وباليونانية باسليقون ومنه برى حرقه أكبر من ورق البستاني تميل خضرتها الى البياض وقضبانه خارجة من نفس ورقه ملصوقة على جانبي القضبان متوادية في طرف كل ورقة ثلاثة خيوط ملتفة على جانبي القضبان متوادية في طرف كل ورقة ثلاثة خيوط ملتفة تيوط الكم الا أنها أدق تلتف بما قرب منها (٢) من النبات . وزهره أبيض أو احرار وله خواريب فيها حب أصغر من التربس ، وإذا أكل ولد اللهن .

٢١٦ — جوز التي ويسمى جوز الرقع . يؤى به من اليمن وقيل إنه ضرب من الجماض وهو أكبر من البندق قليلا لونه بين الصفرة والبياض فيه تحزيز .
 شرب درهمين منه يغ م بلغا ورطوبة وينفع من الفالج واللقوة .

۷۱۷ — جوز الكوثل (۲) ويسمى أقراص الملك ومنهم من يسميه حيوز التيء . وهو دواء يؤتى به من المند وهو كالشاهبلوط الصنير في جرمه ولونه . ونصف درهم منه يسهل ويقيىء وهو غير مأمون .

۲۱۸ – جُوْز ماثل ويقال جوزمائم (٤) وجوزماثا (٥) ويُعرف عندنا بشجرة المرقد . وهُو ثمنس يعلو نمو فسدة الرجل وورقه كصناو ورق الباذنجان إلا أنها أمنن وأشد ملاسةً وله زهر كبير أبيض طولة أقل من شبر يشبه الأبواق الشامية . وهو في برام طولك خضرطويل المماليق . وله ثمرة كالجلوزة

⁽١) كذا في ت وفي ءَ : البسيلا .

⁽٢) ت: يا ترب منها ، ذ: فيا ما قربها ،

⁽٣) ت و غ : الكوبل ٠

⁽٤) ت : ماتهن ، هماتمن .

⁽a) ترهٔ: مانا ·

الرابعة وقيراط منه فى النيبذ يسكر سكرا شديدا ومثقال منه يقتل . (الرازى) مُحَدِّرُ و ربمــا يفتل وينثى ويقيءُ ويسكت .

٢١٩ -- جوز القطاة: نبات ينبت فى الفيعان له ورق كورق البقلة الحيقاء إلا أنه ألين وعليها زغب وقضبانه كثبرة خارجة من أصل واحد منبسطة على الأرض ليّنة معقدة وله أخْيية كأُخْيية الحكاكر في جوف كل خِباء مُلكً أصغر الى الطول فى جوف حيّان أصغر من الجلبان يؤكل وملؤه ينفع من القوليج.

 ۲۲۰ – جُفْت آفْرید : (ابن سبنا) شجرة صنوبریة (۱۲ الشکل تشبه اللوز فی رأسه كالشوكتین وربما انشق وانفتح . وهو یزید فی الباه جدًا .

۲۲۱ - جُرِيرُ (۲۲ : (قسطا بن لوقا) هو الفستق المصرى وهو شيء ينهت في المياء القائمة وله ساق جوفاء رقيقة على طرفها شيء كراس القدح شكلا لونه بين الخضرة والسواد فيسه ثقب مستديرة فى كل ثقبة منها حبة مستديرة (١٠) وعليه قشررقيق كما على الشاهبلوط . وهذا النبات لا يصلح لنير الأكل .

۲۲۲ — جوز جُندُم ويقالجوزكَندُم وجوزعَندم وهي تُربة العسل وزهر المجروقد يستى عرم الحجام . وهي تربة سبخة بيضاء الى الصفرة يؤتى بها من برقـة وخراسان وليست بثربة برقة كما يزعم . (روفس) مُبرَّد مجفف ملطّف .

⁽۱) ت ره: مانا ٠

 ⁽٢) في نص قانون ابن سينا (طبع بولاق الجزء الأول صحيفة ٥٨٥) : شيء صنو برى .

⁽٣) كذا في ت . وفي غ : جبروس ، وفي جامع أبن البيطار (ج ١ ص ١٧٩) : جيوس .

⁽٤) هذه الجمله ناقصة في النسختين (ت رغ) وقد كلناها من نص ابن البيطار .

(غيره)حارّة رطبة . (ابن سينا) يهرئ الغوباء ويطفىء الحرارة وبهـــيّج الباه . (وقال آخر) اذا طرح ربعُ كيلجة منها فى عشرة أرطال من عسل وأ ربعين رطلا من ماءٍ حار وضرب ناعمًا وتُعلَّى صار شرابا من ساعته .

۲۲۳ — بَحْرُع: حجر معروف وهو صنفان يمانى وصيني . يقال إن من تغتم به كثرت همومه ورأى أحلاما مفزعة وسحيقه يجلو الياقوت ويسهل الولادة تعليقا .

٢٢٤ – جَمَسْت : الأحر الياقوتي من شرب في اناءٍ منه لن يسكر.

۲۲٥ - حِبْسِين : هو حجر يوجد فى معادن الحَصَّ صفائحى «نه أبيضُ
 مشفَّ ومنه أحمر وَمنه تمترج منهما وقبل انما هو الحص بعينه . (ج طَ) مجفف
 ومغرى ومسدد وملحج . (د مَ) يقطع نزف الدم اذا شرب قتل بالحنق .

٢٢٢ - جُبِن : (ج في الأغذية) أفضل الجنبن الحديث وخاصة المتخذ من لبن حامض وهو ألذ من غيره وأجودها للمدة وأقلها عسر المضام وليس بردىء الخلط . والعتبق حاد معطش مولد للحصاة . (د ب) الجبن الرطب اذا أكل بلا ملح كان مغذيا طيب الرائحة والطعم جيد العسدة هين السلوك الى الأعضاء ويزيد في اللجم وياين البطن باعتدال . واذا طبخ وعصر وشوى عقل البطن وماؤه يغذو الكلاب جدا . والجبن المعمول من لبن الخيل وهو المستى ايفاق زهم كثير العذاء . منهم من يسمى إنفحة الخيل إيفاق . (غيره) الجبن المتخذ بالطبخ بالمار خير من المتخذ بالأنفحة الخيل وهو الجبن المتخذ بالأنفحة الأنه يكتسب من الأنفحة حدة . وفي الأقط وهو الجبن المتخذ من الراب خاصة قوة عملة .

٧ ٢٧ - تجلود : (ج يا) (١) جلد الكبش اذا أخذ من ساعته حين يسلخ فوضع على موضع الضرب ممن يُجلد نفعه أكثر من كل شيء . (ذَ بّ) القنفذ الر ي اذا أحرق جلده وخلط بزيت رطب ولطخ داء الثماب وافقه . (غيه) جلد المعز والجدي ساعة يُسلخ اذا وضُه على لسع الحية أخرج السمّ . وجلد الذي ينفع من الصرع وإذا شدّ.

29 r.

على البطن أطلق القولنج . وجلد ابن آوى اذا علَّق على من به عضة الكلب الكَلب لم يُخف من المـــاء .

حيوان يصلح أن يكون في البر والبحروأ كثره في الماء و ينتذى السمك والسراطين حيوان يصلح أن يكون في البر والبحروأ كثره في الماء و ينتذى السمك والسراطين وخصاه هو الجندباذ ستريفهم من نهش الهوام ويهيّج المطاس ويدر الطمث و يخرج الجنين والمشيمة . و باطل ما يقال أن هنذا الحيوان اذا طرد وطلب يقلع خُصاه و يطرحها لأنه عال أن ي يصل اليها وذلك لأنها لاصقة مثل خصى الخترير . و ينبنى أن يشتى الجلد و يخرج الحصى مع الجاب الذي يحوى رطو بة تشبه العسل و يجمّف و ينطف و ينفسع في أمراض المسل .

٧ ٢ - بِترى: ويقال هو الساور بلغة أهل الشام ويقال هو الإنكليس ويسمى بالفارسية مار ماهى. وأما ابن جلبل ققال الجريث حوت طويل له خوطوم طويل أملس بلا قشر يكون فى نيـل مصر كثيرا. وقيل أنه السلباح. وذلك خطأ. (جى) قوة لجه جاذبة. (ذب) سلورس وهو الجرى طريه يفذو ويلين البطن وينقى الرئة ويجود الصوت. واذا تضمد بلحم المملوح منه أخرج السلاء من عمق البدن.

⁽١) ت رغراين اليطار: ي ومذا غاط.

٢٣٠ - جَرَاد: (فَ بَ) أَقرِيناس و اذا تبخربها النساء نفعت من عسر البول. (غيره) أكله بابسا محرق للدم والجراد الطويل العتيق(١) اذا عُلق على من يه حمّى الربم نفعه .

وقد وفرّ - بُحُفُّنُب : وهو الطويل من الجراد . اذا أحرق في قدر وفرّ رماده على الآكاة نفعها .

⁽١) لمل العنق .

COMMENTARY

IB. quoted this short paragraph of Gh. without saying what kind of drug was gukhdhub; therefore Lischerc was not able to identify it. Danfer (Jayakar I, 403) says about it: "Al-gukhdab; ביליי : a species of locust of green colour, having long legs, etc." We think that it is the long-shested or long-necked locust mentioned in the above chapter, and probably identical with Mantis religiosa L., an orthopterous locust-like insect, which is frequent in the Mediterranean regions. In Egypt it is called abût silûh : "("armigerous") on account of its large spinous forelegs with which it catches its prey-

As to Synonyms we were not able to find any in the dictionaries of medieval Oriental languages. The name for *Mantis religiosa* is in English: praying mantis, in French: mante precheuse, in German: Gottesanbeterin.

Govt, Press 11676-1935-1000 ex.

230. Garad Locust.

(LECL. No. 467).

Dioso. II (52): ἀκοίδες (akrides). If used as a fumigation by women it is useful against dysmicturition.

ANOTHER AUTHOR: Eating locusts burns the blood. The locust with a long chest (1), if suspended round (the neck of) a sufferer from quartan fever, is useful.

COMMENTARY

The locust meant by Dissurines is probably Acridium Aegyptium L. or the wandering locust (Pachytylus migratorius L.), because he said that it was a common food of the inhabitants of Leptis (now Tripolitania) in North Africa. Even in our days it is still eaten by the Bedouins, particularly in times of dearth. The long-necked or long-chested kind is probably identical with the following (gulthdhub جعنب Mantis religiosa?).

All the Arabic authors speak in detail of the medicinal properties of locusts. DAwOD (I, 206); e.g., declares the yellow and fat locust to be the most useful remedy, combined with myrtle, against dropsy and leprosy; its feet when burnt and sprinkled on warts and skin diseases, cure them.

ي **231. Gukhdhub جننب Proying Mantis** ? (Mantis religiosa ?).

(LECL. No. 471).

It is the long kind of locust. If burnt in an earthen-potand its ashes sprinkled on a slough (alia) it is useful.

⁽⁴⁾ Both our MSS. read " the long old " عَيْن loanst.; IB's reading as given above in probably more correct.

⁽s) In Hebrew מלעם softom

in the lakes Manzala wi and Burullus , the best known kind of sheat in the Nile is the Silurus electricus (ra'al (194)).

IDERS (p. 94) says that the cut-field (girr?) is called in Spain silbág and in Morocco nan 'i' (i.e. "fish"), and that it has no scales, and no finches. So his description again refers to the eel.

Dâwûd (I, 205 foll.) gives a good description of girst as a smooth long fish with a wide mouth; he thinks that it is called in Egypt garmat and in Syria sillawr. This is quite correct, as garmat is still to-day the name of the eel-shaped cat-fish (Clarias or Silurus anguillaris) of the Nile.

SYNONYMS:

(a) Silurus, sheat-fish:

Gr.: σίλουρος (síluros, Diosc., Galen); Lat.: silurus (Pliny); Copt.: yyelhav, xelqav (shilbeh). Ar.: girrî, girrîth جری، جریت (Spain, Ibrîsî), nûn نون (Maghrib, Idrîsî); Pers.: same names and usbula اسله, tbdla اسله (both doubtful, Naficy, I, 819); Turk.: tatli su yılan balighi اسله ("sweet-water snake-fish," i.e. fresh-water eel, Samy); Eng.: silurus, sheat-fish, shad; Fr.: silure-chat; Germ.: Wels. Nilwels.

(b) Anguilla, eel.:

Gr.: قريدك و فريد فريد (engchelýs); Lat.: anguilla; Ar.: girrî, girrîth عناس (Gh., Damîrî, Dâwûd), ankalîs انكليس (Gh., Damîrî), hankalîs عنقان (Syria, Berggr.), sinnâr al-hát عناه الموت (ibid.), samak hayya عناه الموت (ibid.), hanash محنث (Sharaf) مناه أبيد (Sharaf) مناه (Egypt, Dâwûd), silbâh مروط (Dozy); Pers.: mār-māli: ماداهي angītîs أنكليس (ث); Eng.: eel; Fr.: anguille; Germ.: Aal.

⁽ 1 & 2) The meaning of most of these names is: water-serpent, sea-serpent, snake fish, etc.)

IBN GULEUL said that al-pirith أباليث is a long fish with a long smooth enout. It has no scales and is common in the waters of the Nile of Egypt. It is said that it is as-silbáh. ألساراح, but this is a mistake.

GALEN X (XII, 365) (2): The faculty of its flesh is attractive.

Dioso. II (27): Σίλουρος (siluros), i.e. al-girri, if fresh, is nourishing and purging; it purifies the lungs and beautifies the voice. If the salted kind of it is applied to the body, it extracts its thorns from deep tissues.

COMMENTABY

There is a confusion in this chapter between at least threespecies of fish. The description of DIOSCURIDES refers to the sheat-fish or shad (Silurus Glanis L.), a European fish; that of In Guigue to ash-shiba with means a Nile-fish which has a curved trunk-like snowt.(2) The names given by Gh. refer to the cel (Anguilla valgarie L.). It is, however, evident that IBN Gul-GUL applies the name girri or girrith to ash-shilba, while Gh. and all the later Arabic authors take it as a name of the eel and a synonym with ankalis, silbak and the Persian mar-mahi (" snake-fish"). Damini (JAYAKAR I, 81 and 424) gives the eand other names as synonyms with girl or girlih.(2) The name sillaur, obviously derived from Greek silures was formerly used in Egypt and Syria to designate the eel; in Syria its name is still sinnar al-hat صنارالوت (" Silurus-fish, " Berggren, p. 43). In Egypt, however, there are fifteen different species of Silurus. living in the Nile, while Anguilla vulgaris more frequently occurs in the stagnant salty lakes of Lower Egypt, especially

⁽¹⁾ There is no special chapter on Silurus in GALER'S works.

^(*) Compare A. Boullemere, The Fisher of the Nile (in Anderson's Zoology of Egypt), London, 1907, 2 vols. in-40.

Leagung, AFU, 2 vom m-m.

The Arabic manes are well explained in Anth Ma'zous, An Arabic Zoological Dictionary (Al-Muktataf Press, Cairo, 1933), pp. 11, 95, 95, 229 and 296.

Daniat (Jayanan I, 81 and 424) contines gird, girrish and animits, the names, for the col and the cat-fish, in the same manner as Granul.

^(*) Traces of this name survive in the name of another fish of the genus Silvaridate the Nile-fish Labor viloticus which is called in the Mayyam-Bistriot of Carriers 1/2.

is responsible for the characteristic empyreumatic and disagreeable odour of the drug. The Russian castoreum, in former times the best, and very much used in the treatment of hysteria and dysmenorrhoca, is now rarely imported and has been replaced by the Canadian drug (1). Adulteration of the costly substance was very frequent.

and it is not possible to translate even a small part of it. The Arabic name gundbådastar جند بادستر is a corruption of Persian gund خند (i.e. testicle) and bå-dastar بد دستر (i.e. beaver).

SYNONYMS: Gr.: xágrodos doris (kástoros órchis, i.e. "beaver's testicle," Droso.), καστύριον (kastórion, Galen); Lat. 6 eastoreum, testis fibrinus (PLINY) ; Ar. : gund-badastar جند بادستر gund-bidastar بخصى القندز (2), khusa al-qunduz خصى القندز, khusa al-qudâ'a خصى القضاعة (HANDJÉRI I, 346), khusê kalb al-mê' خصى "(" testicle of the water dog") (MATM.), khusiyat al-bahr sea-testicle," VULLERS II, 1036), khusiyat al-gardh نصية المرة ("Sharar): al-fahisha أخصية المرة ("the obscene") and almuntina المناة ("the stinknig") were popular names in the Maghrib (MAIMONIDES); Pers.: kund-bidastar בוט נستر, gund-i-bidastar . VULLERS I. خادبيدست jund-bidast جندبيدسة , jundbidastar كادبيدسة 532), khdya-i-sag-i-abl خايه سك الى (" testicle of the water-dog "). khazmiuan ناجة (Vullers I, 688), fajisha مناف (Vullers II. 630, evident corruption of al-fahisha Line MAIM.): Turk : same names and gunduz khayesi قونلوزخاياس (AVNI, HANDJERI, SAMY); Eng.: castoreum; Fr.: castoréum.; Germ.: Bibergeil.

229. Girrî & F., Eel or Sheat-Fish (Anguilla or Silurus). (LEGL. No. 475).

It is supposed to be as-sillary أسلور in the dialect of the Syrians, or al-ankalis الانكليس. Its name in Persian is man-mahi

⁽¹⁾ Castoreum moscoviticum, sibericum et canadense.

^{(&}quot;) Instead of dal 2, frequently spelled with didl 2.

the water and feeds on fish and crawfish. Its testicles are the castor, which is useful against the bite of (poisonous) animals, provokes sneezing, is emmenagogue and expels the embryo and placenta. It is wrong to say that (this animal), if pursued, removes his own testicles and throws them away, as it is impossible that he could reach them because they are attached (to his body), like those of the pig. It is necessary to incise the skin in order to remove the testicles with their membrane which contains a liquid resembling honey; it is then dried and stored.

GALEN XI (XII, 337 foll.): it is heating, desiccative, sedative and useful for nervous diseases.

COMMENTARY

This chapter was much abriged by BH. IB gives the full length of the quotations from Dioscournes and Galen, and many passages from the old Arabic authors. The zoological errors of the old medical writers who confused the beaver with the common otter and even with the sable, and who thought castor to consist of the testicles of the animal, were not corrected before the XVth century (1).

The drug castor consists of the dried preputial follioles of the beaver (Castor fiber L.) who lives (besides Canada) mostly in western Russia and Siberia (3). The large double glands contain, in the fresh state, a whitish or yellowish creamy substance, but as they dry this becomes dark in colour. The dried glands are brownish or greyish, pear-shaped and from about eight to ten centimetres long (3). Their weight is from 60 to 120 grams. Because they are frequently connected in pairs, heavy and solid, they have been considered by the old pharmacologists as testicles. They contain a resinous matter and a volatile oil, which latter

^(*) By the French pharmacologist G. Rohdmarrus of Montpellier (Methodus de Materia Medicinali, etc.; Patavii, 1866).

⁽⁵⁾ The animal lives on vegetable matter only.

^(*) This description is abstracted from the fourth edition of H. G. Grammen's Test-Book of Materia Medica (London, 1924) p. 551.

227. Gulûd جاود. Hides.

(LECL. No. 497).

GALEN XI (XII, 342): The skin of a ram, if taken immediately after skinning and put on the place of a contusion, is much more useful than any other treatment.

Droso. II (2): If the skin of the land-urchin (hodgehog) is burned, mixed with fresh oil and applied to alopecia (dd' ath-tha'lab (داء العلب) it cures it.

COMMENTARY

The medical application of hides and skins was discussed in detail by all the old authors. These discussions are full of superstitions and are of more interest to the history of Superstition than to that of Medicine. We find it, therefore, unnecessary to refer to these beliefs here.

Synonyms: Gr.: δέρμα (dérma); Lat.: pellis; Ar.: gild , plur. guldd יליד; Pers.: pôst יציי; Turk.: deri ילנט; Egypt.: און אין יין יין יין יין יין יין אין אין פאראי הוא יין יין יין יין אין אין האראין. Eng.: skin, hide; Fr.: peau; Germ.: Haut.

228. Gundbådhastar جند باذستر, Castor.

(LECL. No. 516).

Diosc. (II, 24): κάστορος (kåstoros) [ὄχχις (órchis)] (1) it is the beaver (2), an amphibian animal. It lives, however, longer in

⁽¹⁾ The last word is missing in the Arabic text.

^(*) In the text as-summar السور which designates in reality the sable (Mustela zibellina, see Jaxadan, I, 80) while a Pemian-Arabic name of the beaver is al-quaduz إنقاد.

Drosc. (II, 71): Fresh cheese when estem without salt is mourishing, of good odour and taste, kealthy to the stomach, easily assimilable by the organs, increases the flesh and is moderately laxative. If boiled, expressed and fried, it constipates the bowels (diarrhoea). Its whey is very nourishing to dogs. The cheese made from milk of mares, called inning (hipphik) is of rancid smell but very nutritive. Some people call the rennet of mares hipphik.

ANOTHER AUTHOR: The cheese which is prepared by boiling on fire is more healthy than that prepared with rennets, because that from the rennets is sorid. Concerning al-aqat his, which is the cheese prepared with sour milk, it has the specific quality of a resolvent.

COMMENTARY

Nearly all the Greek and Arabic medical authors wrote kong chapters on the medicinal and alimentary properties of the different kinds of cheese. It would be too long to mention here even a fraction of them. IB., in his chapter, gives a supplementary note on the application of boiled cheese for acute arthritis, according to Galens and Ar-Tamest. Identity p. (95), as usual, records synonyms in ten languages, e.g. "Latin" quashid (caseo), "Frankish" furmaj (fromage) and "Modern Greek" (ighrigh (غريف)) tiré (rugl).

Dlwôd (I, 202) mentions that cheese was prepared not only with rennets, but also with other coagulants, like carobs (kharalb ישׁנִי-) and saffron (gurtum أَرْحُم).

It is of interest to note that ABÛ MANSÛR (p. 180) recommended gypsum "for fractures and wounds," whereof ACHUNDOW (p. 317) concluded that this might be the first mention of the plaster-bandage for fractures. But we think it more likely to have been used as a plaster only, as at that period no other treatment for fractures was known but extension and application of poultices.

The Arabic name gibsin and is derived from the Greece-Syriac gubsin and (see Brookelmann, p. 129 a.).

226. Gubn نجن. Cheese.

(LECL. No. 467).

GALEN in De Alimentis (VI, 697 foll.) (*): The best cheese is the fresh kind, especially that prepared from sour milk; it is more palatable and better than other kinds to the stomach, the least difficult to digest and not of a bad nature. The old kind, on the contrary, is acrid, provokes thirst and leads to the formation of stones (concretions in the bladder, etc.).

⁽¹⁾ According to STEIRGASS not plaster, but clay mixed with straw.

^(*) De Alimentorum Facultatibus, book III, chapter 17: "On Cheese."

225. Gibsin C. Crystalline Chalk (Calcium Sulphate)
(LEGI. No. 468).

It is a stone which occurs in the quarries of gypsum (gass). It is lamellar, white and transparent. There is a red kind of it, and there is a third kind which is a mixture of both. It is said that this is nothing but real gypsum.

GALEN IX (XII, 213): It is desiceative, glutinous, clogging, obstructing and solidifying.

Diosc. V (116): It stops haemorrhages; if drunk (with water) it kills by suffocation.

COMMENTARY

Innisf (p. 96) gives synonyms for gypsum in different languages, but all mutilated by copyists.

 \mathbf{I}_{BN} Gazla calls gypsum "white-lead of the plasterers" (see synonyms).

Dawon (1, 204) gives a fantastic opinion of the chemical composition of gypsum (with mercury, etc.) and calls it "a marble of incomplete maturity."

⁽¹⁾ Compare supré chap. 184 (biséq al-queux).

("mucus-coloured jasper"), balghami tash المنعى طائع ("(mucus-coloured stone") (all Samy); Eng., Fr. and Germ.: onyx; Fr.: (moreover): agate rubané.

224. Gamast ., Amethyst.

(LECL. No. 510).

The red hyacinth-like; if a person drinks from a vessel made of it, he does not become drunk.

COMMENTARY

This chapter is probably abridged by BH., extracted from one of the numerous Arabic Lapidaries. Compare the corresponding paragraph of IB. translated by Leclerc. Dawon repeats IB.'s quotation of Al-Kindî that the best amethyst is found in the valley as-Safrâ' alad in the Higâz (Arabia). He believes that amethyst is a clear residue from the "coction" of much sulphur and a little mercury from which comes its red (violet) colour. There are many superstitious applications of this harmless kind of bluish-violet variety of quartz. The Arabic name is a corruption of Greek authoros (améthystos), i.e. "preventing drunkenness," a name resulting from the above-mentioned superstition. This is the reason why precious amethyst-cups are sometimes found in the treasuries of Royalties and Churches.

Synonyms: Gr.: ἀμέθυστος (améthystos); Lat.: amethystus (PLINY); Ar.: gamast בייה, gamast (Dîwôd); Pers.: jamast לكن كُوْن كُوْن أَرُون (Naficy II, 57), la'l-i-kabid لَوَانَ لَا اللهُ وَاللهُ (Handjéri, Samy) (1); Eng. and Germ.: amethyst; Fr.: améthyste.

⁽¹⁾ The meaning of this name is "lagses of the mountain." Lagses point (Loccom) is the gelatinous sweetnest "Turkish delight" prepared with gum-arabic, fruit juices and rosy or yellowish dys-staffs. The origin of this name is Arabic (lagses, plur. of lagses and a mouthful). The Turkish name for amethyst rofers to the transparent mineral and its recomblance to this coloured sweetness.

finger, it provokes any amount of worries to the wearer and causes him frightening dreams. Pounded, it polishes the hyacinth-stone; if carried suspended (round the neck of a woman) it eases delivery.

COMMENTARY

This chapter, much abridged by BH., is abstracted in its entirety from the apocryphal Lapidary of Aristoteles (1). It is an agate formed of coloured layers of chalcedony. It was used for the manufacture of cameos, but has no medicinal actions whatever. The above-mentioned superstitions regarding the stone were repeated by all the Arabian and Persian medical authors. Dâwûp (I, 207) alone gives a short description of the mineral in the following terms: "It is a veined stone, as if it has eyes of yellow, white, red and black colours. The shape of the stone is always oblong, so that people believe it to come from the horn of a beast of burden. The truth is that it is a mineral in the remotest part of Yemen, in the neighbourhood of ash-Shihr:اشعر)(*). If pounded and sprinkled (on a wound) it stops homorrhage and causes the growth of healthy granulations." Then follow superstitious prescriptions for its wearing as an amulet. The True (onux) of Dioso, and Galen is gypsum; see next chapter.

⁽¹⁾ Compare RUSKA, p. 12.

⁽²⁾ A sea-port on the south coast of Arabia in the land of Males ">6".

⁽⁸⁾ Because it is found in the Turco-Kurdish district of Sulaimaniyé.

⁽⁴⁾ The two last names seem to be corruptions of juspis jamper.

⁴⁹ So South-Arabia; side suprd note 2.

Idrisi gave a very remarkable chapter on gavz oundum (Istanbûl MS., p. 81) in which he clearly explained that this substance was not earth, but a vegetable growth: "It is something that grows in the deserts which cross the centre of sterile mountains. It grows between stones, is yellowish in colour and does not rise above the soil higher than the size of a fingernail. It has neither leaves nor stem, and turns reddish in colour: when dried. AR-Razî, AL-BASRî and Is-HAQ IBN 'IMRAN call it "dandruff of the stone" (bahaq al-hagar بن ألجر lichen). Its best kind is that which is imported from Khorassan. It occur? also in our land, in the east of Andalusia (Spain), in the mountains round Saragossa, but it is not of the same quality as that which is imported from Khorassan. Our people collect it when it is dry. It looks then a kind of granular earth like chickpeas. and is of greyish colour." He then describes the preparation of artificial wine with honey, water and Lecanora-dust.

Dâwôn (I, 219 foll.) adds that the bees like this lichen, and that the mead prepared with it is "much more intoxicating than fermented drinks. The drink remains potent for a long time. The yellow (lichen) imported from the Berbers' country, (North Africa) is bad. Its best kind is that which is used for preserving honey; one drachm of it is sufficient for one diffy to light l

SYNONYMS: Ar.: gawz gundum רָבֹי (and corruptions of this name), khur' al-hamâm רָבֹי, zahr al-hagar בֹי, shahm al-'ard ביי, turâb al-'asal יני וויי (see above). For other names see Issa, p. 86. Pers.: shâr-zâd ביי (SCHLIMMER, p. 343), jawz gandum רְבֹיבֹי (ABÔ MANSÔR); Turk.: same names: Eng.: manna lichen ?? Fr.: lichen nutritif, lichen comestible; Germ.: Manna-Flechte.

223. Gaz' & Onyx.

(LECL. No. 482).

This a well-known stone; it is of two kinds, Yemenite and Chinese. It is said that if it is worn mounted as a ring on the to be a kind of palatable lichen, Lecanora esculenta Ev. or L. affinis Ev., Chlorangium Jussufii Lt. and the like. The latter lichen is in fact indigenous in Tunisia (Barca), and the Spanish kind, called "pigeon's dung" has been identified with Lecanora crassa Lejasca (Sickene.). These Lecanoraceae growing on wood and stones are whitish, crumbled masses which are detached and driven by the wind over the steppes of Asiatic countries. They form in times of drought and famine an important food for Kirgiz, Kurdish and North-African nomads. They are said to be the Manna of the Israelites, which descended during their wanderings in the Sinai desert (where they are not found to-day).

Schlimmer (pp. 12-14) gives a detailed report on the growing of Lecanora in the Persian deserts, particularly in Sistân, a few hours after a heavy rain. The inhabitants still believe in a legend of how the army of Alexander the Great was saved from death, during the campaign to India, by the sudden growth of this nutritious lichen. It is used in Persia as a galactagogue for women, and bears the name shin-sâd all producing "). Lecanora is frequent also in the North-west of Persia up to Senjan (near Mossul).

The name gavez gundum is half Arabic half Persian, the first word meaning "nut" and the second (gandum مُكُنُ" wheat;" it is said that the nut-like fragments of this lichen are sometimes heaped up (by the wind) like mounds of wheat. Other spellings are corruptions of gavez gundum.

The quotation of Paulus Aegineta by Arab authors is erroneous. He speaks of Manna Thuris a wholly different substance (see Adams I, 451). IB. quotes older Arabic physicians who give a correct description of the drug, e.g. Is-hâq IBN "IMRÂN. "It is an earth composed of grains like chickpeas, of yellowish-white colour." IBN GOLOUL says: "It is the 'honey earth' with which in our land (Spain) the honey is preserved during the summer; it is imported to us from the Zâb inear Qairawân (in Tunisia)." The preparation with honey and water described by Gh, must form a kind of honey-mead.

when QUSTÂ' B. LÔQÂ lived there. The reason for so many mistakes of botanists was probably due to the fact that the only Pistacia growing in Egypt is Pistacia Khinjuk Stock var. glabra Schweinf.; but this is a desert tree and its fruit has nothing whatever in common with Qustâ's description. As to the synonyms we refer to chapter 128.

222. Gawz Gundum جوز جنام, Manna Lichen ? (Lecanora esculenta, affinis Ev., etc.).

(LECL. No. 538).

It is called also gawz kandum جوز خلام and gawz 'andum جوز خلام); it is called "honey-dust" (turbat al-'asal جوز خلام) and "flower of the stone" (zahr al-hagar إنجر المعالية) and also "pigeon's dung" (khur' al-hamâm والمراجع). It is loosened earth, whitishyellow, which is imported from Barca and Khorassan; but it is not the earth of Barca as it is alleged.

RUFUS (1): It is refrigerant, desiccative and sedative.

ANOTHER AUTHOR: It is hot and humid.

Inn Sinâ: It cures eczema (qúba' sha), brings down temperature and is an aphrodisiac.

ANOTHER AUTHOR said: If a quarter of a kilja (a) of it is mixed with ten pounds (artill ارطال) of honey and forty pounds of hot water, beaten to a thin consistency and covered up, it turns immediately into wine.

COMMENTARY

SONTHEIMER thought this substance to be gamboge or the reain-gum of *Garcinia*. Legler contradicted him and declared the drug in question to be a *Lecanora* (Lichenes), and Signer-Rescript (Arzn., p. 63) confirmed his opinion. It seems, indeed,

IB. has, instead of Rufus, Paulus; this latter reading seems more correct, asquoted also by last Stat.

⁽²⁾ Perhaps kalija + (Pers.) " a loaf."

231. Gubrus ジャー(?), Nelumbo (Nelumbium speciosum Willd.).

(LECL. No. 547, giyûs رجيوس).

COMMENTARY

Not a single old or modern botanist has been able toidentify this drug, including even SICKENBERGER who knew sowell the botany of Egypt. It is, however, easy to recognise in the description given by Quera new Lûga the fruit of Nelumbo-(the water-lily Nehumbium speciosum Willd., Nymphaeaceae) which is shaped like the rose of a watering-pot. In its holes are theround seeds which have been described in chapter 128 (2) underthe names of "Egyptian bean" (xúquos Alyúntos, Dioso.) or " Contic bean " (bagilla gibti باقلا قبطي Gh.). The flower was mentioned in chapter 103 under the Persian name of aw sapid-(8). The seeds were in former times, an importantfood in Egypt. In our days the Nelumbo plant or peltated: water-lily grows only in gardens. The Arabic name is givenfrom three sources in three different forms; Gh. (MS. T.) spells. gubrus جرس ; MS, G., gubrds جروس; and IB. giyds جرس It. has been impossible for us to find out the origin of thesenames. As to the name "Egyptian pistachio-nut," it may have been used in Syria and Mesopotamia in the IXth cent. A.D.

⁽⁴⁾ See our Introduction, No. 21, p. 14.

^(*) See p. 277.

^(*) See No. 103 Aunta.

COMMENTARY

This plant may be one of the kinds of sea-navelwort (Androsace Tourn., Primulaceae) (1). This identification could not be realised from Gh.'s short description, but from IDR'ss's more detailed chapter which was copied by IB, and which we translate here from the Istanbûl MS. (p. 88): "It is a plant growing in sandy places, annual and about a span high. It has a knotty stem with many thin twigs. The leaves are narrower than those of the chickpea (himmis and in pinnate arrangement. At the top of the stem there are pine-cone shaped pods, three or four on the top of each stem, like yellow myrobalans (hara nuts, halilag asfar هلاج اصفر), having at their ends something like thin twigs (2) resembling a dried-up hand (shalld' . . . In their interior there are three partitions through their whole length, and always five grains in each (compartment)." IDEST then discusses the medicinal qualities of the seeds and affirms, like Gh., that the fruits are aphrodisiac.

Dawôn (I, 208) says that the plant was called in Syria khusû ath tha'lab خصى التعلب (" fox's testicle"), a name which we already found for Satyrium (Orchis hircina) (3).

The name guft-afrid is Persian and its meaning is "created in pairs," (4) whence the allusion to testicles and the belief in its aphrodisiac power. Vullers (II, 47) mentions the Persian synonym ruqûqis وقاقس which he derives from Greek ووادي (ôrchis=testicle).

SYNONYMS: Ar.: guft afrîd جفت أفريد, khusû 'ath-tha'lab جفت أفريد (Dâwôd), mullâh ملاح, (Maghrib), kalaf مالك (Issa); Pers.: Juft afrîd جفت أفريد, ruqûqis وافاقس (VULLERS); Turk.: same names; Eng.: sea-navelwort; Fr.: androsace, androselle; Germ.: Mannsschild.

⁽¹⁾ It has nothing to do with Droso's androsakes (see above, chapter 46, p. 134).

⁽a) In the text sha'r شعر (hairs) instead of sha'b شعب (bwigs).

^(*) See above, chapter bisidis (No. 140). (4) Referring to the split-up fruit.

Alkelenge), and in the interior of each husk there are yellow oblong pods (ghuhf غانه) in the interior of which, again, are two grains smaller than a chickling-pea. They are eaten and their infusion is useful against colic.

COMMENTARY

The plant in question cannot be identified with certainty. The description reminds one of a kind of orpine (Sedum, Crassulacese); the leaves of Sedum reflexum, e.g. resemble those of purslane and are used as vegetables. The description of the fruit is more like that of Sedum Copaca L. But other identifications are possible.

Gh. is the only Arabic author who gives the name of gaws al-qatâh عزز القطاء (better al-qatâ), i.e. "sand-grouse-nut"; Dâwôd (I, 220) adds that it is favoured by this bird, but is of no other use. IB: (Lecl. No. 534) thinks that Gh.'s gave al-qatâh is identical with gave al-anhâr ביל ("nut of the rivers") which he identifies, according to some Spanish botanists, with жүртаба (kêpaša, Diosc. III, 151).

SYNONYMS: (for Sedum Cepaea L.): Gr.: אתמנת (kêpaka, Dioso.); Lat.: cepaea (Pliny); Ar.: gawz al-qatāh ילבו (Gh.), gawz al-anhâr ילבו (ISsa); Pers. and Turk.: no names; Eng.: Cepaea orpine; Fr.: orpin cépée, joubarbe des vignes; Germ.: Zwiebelpfeffer, rispige Fetthenne.

مِعْت أَفْرِيدُ Guft Afrid جَعْت أَفْرِيد, Sea-Navelwort? (Androsace Tourn.?).

(LECL. No. 491).

IBN Sinā (I, p. 285): A pine-cone shaped plant (1) resembling an almond on the top of which are two growths like thoms; sometimes it is split up and opened; it is strongly aphrodisiac-

⁽¹⁾ In Ins Sink's original text: "soverthing like a pine-cone."

hot lands or on mountains has a stronger action (than the others)......... The parts of this drug used are the seeds in the interior of the nut. It has been asserted that they are like orange-seeds; but what I have seen is something like henbane-seeds, white and black." Dâwôn then recommends it as a tonic and in decoction with vinegar externally against swellings, tumours, dropsy and skin diseases. "If eaten it is associated with vomiting it is followed by stupor, madness and refusal to eat and drink. It is sometimes fatal. The treatment is to excite vomiting with honey, natron, nut-oil and strong purgatives......"

Synonyms (used for Datura Metel, Stramonium and fastuosa):
Ar.: gawz måthil ליפני , gawz måthil פיפנ , gawz ,

219. Gawz al-Qatâh جوزالقطاه, Orpine? (Sedum Cepaca L.?). (LECL. Nos. 532 and 534).

It is a plant which grows in depressed plains (والْهُمَانُ); its leaves are like those of purslane (baqla hamqd² مُعَلُّهُ), but smoother and covered with down. Its twigs are numerous, coming out from one and the same root, and prolonged on the earth. They are tender and nodulous. It has husks (akhbiya المُعَلِّمُةُ لَعَلَيْهُ), Physolis

The thornapple was unknown to the Greeks. The Persians know it under the name of the author of the a

The first good descriptions of the drug were given by Mesopotamian and Persian physicians, mostly cited by IB. ('Isâ B. 'All, IBN AL-Birrato, AB-Râzî, IBN Sînâ and AL-Bîrûnî).

Interest (p. 80, No. 173) committed a strange mistake in confusing the thornspple with Mafureira (gaux al-kauthal) (*). He describes the plant as a lofty tree and the fruits like small pomegranates; on the other hand he says that the tree is found in Spain.

Dhwfd (I, 217 foll.), however, gives an independently written and interesting description: "It is generally known as al-muraquad, and it is called in Egypt ad-datata المائودة a plant which offers no difference in its aspect to the egg-plant (badhingan المائودة). It grows near running water, in mountains and near ponds. It has a white flower and green and rough calyces (perianths) which reach the length of a finger. Later they become compact and stick together, and sometimes one flower produces more than one nut. This fruit grows on the top of the plant, is thorny, compact, greyish before and black during maturity. It usually ripens, in the month of Haziron (February). Experience has shown that the plant growing in

Ses above, chapter 162 (bang).

^(*) See before, chapter No. 217.

grains; its bank is rough, its taste palatable and rich. It is cold in the fourth degree and, one carat (girât قراط) (1) of it taken in grape-wine (nabidh iii) (fol 28 v) causes deep intoxication, and one mithael (2) kills.

AR-Razi: It is narcotic and sometimes fatal; it causes nausea, vomiting and coma.

COMMENTARY

This drug is the fruit of Datura Metel L. (Solanaceae), a plant which grows wild in South Asia, especially in India where it was known from early times. Its Sanscrit names were dhattura, dhastura and unmatta (DYMOCK II, 584); from this latter name, meaning "insane," in Hindustani comes mata the (8) "drunk, intoxicated," and from this latter term also, one of the Arabic and Persian names is undoubtedly derived. Another Sanscrit name is mâthula, i.e. "maternal uncle" (in Hindustani mâtul مانل) : this is probably the origin of the name mathil-nut. The Indians did not, however, differentiate between the different kinds of Datura; they used (and still use), besides Dâtura Metel, Datura Stramonium and Datura fastuosa. So did probably the Arabs (4) during the Middle Ages, while the Persians used with preference D. Stramonium which grew in Northern Persia and Afghanistan whence the drug seems to have reached Europe by way of the Arabian trade. It is now a weed growing on rubbish-heaps over the whole of Europe and Asia.

All the kinds of Datura contain in their leaves (5) about 0.5 per cent of alkaloid, chiefly scopolamine (hyposcine) with traces of hyoscyamine and atropine. The leaves are now used for fumigations. The seeds contain about 4 per cent of hyoscyamine and oil.

⁽¹⁾ i.e. four grains.

⁽a) i.s. one and a half drachma.

^(*) SMARSPRAR'S Dictionary, p. 1544.

⁽⁴⁾ To whom the thorn-apple alone, not the leaves, was imported from India and Persis

^(*) These are official in the India Pharmacopoea (from Datura fastures L. var. alba).

Dawfor (I. 219) says that the leaves of the plant are like ivy-leaves, the fruit oblong, full of seeds whose flavour is like that of beans. This is exact, as fruit, bark and seeds are not poisonous. It loses its emetic action after two years' preservation.

SYNONYMS: Ar.: garoz al-karothal جوز الكوئل, agras al-malik خبر الغراب khubz al-ahurab الكشلة Gh.). al-kashla الكشلة "raven's bread"), ques al-qhurab قرص الغراب "raven's pastile." Issa, p. 163), adtil al-kalb فاتل الكلب ("dog's bane"), khûnig al-kalb انق الكلب (same sense, VULLERS II. 802) (1); Pers. : kuchula (VULLERS ibid.), kachala J. (SORLDHMER, p. 402). addragi and azaraus الزالة (Vullers I. 72-73) (1): Turk : jevz el-kevsel Turk. Anonymous MS.). No names in European languages.

218. Gawz Mathil جوز ماثل Thorn-Apple (Datura Metel L. Datura Stramonium) and others.

(LECL. No. 527).

It is also called gavez mathim وذمائع and gavez matha and is known to us (in Spain) as "the soporific plant" (shagarat al-muraid, al-muraggad شَعْرة المرقد). It is a θάμνος (thamnos, shurb) reaching about the height of a sitting man. Its leaves are like small egg-plant (badhingan المذنبان) leaves except that they are more solid and much more smooth. It has large white flowers, not quite a span long, resembling Syrian trumpets (abuda ايواف). It is kept in long green calyces (perianths) with long stalks. It has a fruit like a walnut with a rough and almost thorny bark; in its interior there are grains like those of mandrake (luffah رافاح).

'Isa inn 'Alf (3): Garez matha جوز ماتا resembles the emetic nut [gawz al-gawy عزد القي علي علي علي علي علي علي علي المعلق ا

⁽⁴⁾ The last names are used in modern times to designate New somios (Swychnes) (2) This name is corrupt in both our MSS.; mathem itself seems to be a corruption of matheil.

⁽⁹⁾ See our Introduction No. 16, p. 13.
(9) This name is corrupt in both our MSS.
(9) This name, in corrupt in both our MSS.
(9) Each above, chapter 215. The first parts of this quotation is ascribed by IB. to IBN AL-Bresto.

It is also called "the King's tablettes" (ayra's al-malit ارْجُولْ الله); some people call it "emetic nnt" (gasz al-qayy' رَجُولُ الله). It is a remedy which is brought from India. It is like a small chestnut (shāhballūt المُعْلِمُ) in its shape and colour. Half a drachm of it is purgative and emetic; but it is unreliable.

COMMENTARY

The drug in question has been recognised by botanists as the fruit of Randia dumetorum Lam., an Indian rubiacea, a thorny tree producing globular or oval fruits which have, in tle fresh state, a strong odour of recently tanned leather. When dried, they are about the size of a crab apple, reddish-brown and crowned with the rim of the calyx. They were known to tle ancient Indians under the Sanscrit name of madana (actually Hindustani mindhal, etc.). It is the dry pulp of the fruit which is emetic when extracted with water. Drmock (II, 204 foll.) gives this description, and Issa (p. 163) the modern botanical synonyms of the plant.

As to the Arabic name kanthal-nut , et is derived from Persian kuchula , and this from the Hindustani kuchula , and this from the Hindustani kuchula , and this from the Hindustani kuchula , (1), which designates, however, (Ktrychnos) Nuz vomica. It is possible that the drug kusaila or kasila mentioned by Abû Mansûr (p. 253) without a description is the same as this. Sickens., (Arza. p. 63) found the dried fruit gauz al-kauthal sold in the drug bazaars of the Near East as late as 1892. It has disappeared from Egypt in our days. In India it was in use as an emetic, anti-spasmodic and for catching fish by poisoning the water.

IDRIST (quoted by IB., not in the Istanbûl MS.) says that the Indian plant producing the fruit resembles cyclamen (its flower?), and that a dose of six "carobs" may be fatal. IB. gives the advice to pour cold water on the head of persons personed with it in order to make them vomit the drug.

⁽i) Sharspear; and Dungan Forens, Dictionary, Hindustani and English, (London, 1834 & 1857) p. 1328, spells it kuchla.

to its fruit the names of gauz ar-rag مجود القع or gauz al-qayy .

IB: alone separates the two names in two chapters and seems to believe that they are not identical.

Dâwto (I, 218) too did not realise that gauz ar-raq' and gauz al-qayy' were names for the same drug. He gives a good description of the fruit and says that it grows in the mountains of San'a (1) and its neighbourhood. He adds that the fruit exhales a disagreeable smell.

In conclusion we have to state that the two above-mentioned names designate the same drug, the fruit of Trichilia emetical Vahl. (Elcaya jemenensis Forsk.). Nux vomica (Strychnos) seems to have been unknown to the Arabs, as the emetic action of the fruit seeds was unknown to the Indians before the XVIIthmentury (DYMOOK II, 460), although that of the wood was known. Consequently, Issa's designations in three different places of his useful book (p. 75, 2; 175, 4 and 182, 13) ought to be united under the names given above.

In our days, however, the name gauz al-quyy', being the exact translation of Nux vomica, is applied to this Strycknos (fruit and seeds).

217. Gawz al-Kawthal جوز الكوثل (Fruit of Randia dumetosum: Lam.).

(LECL. No. 536).

⁽¹⁾ To-day the capital of the land of Yessen (South-west Arabia).

Africa and South Arabia. Its first description was given by FORSKAL (p. 126) under the name of Elcays. He mentioned the emetic qualities of the fruit as given by Arabic authors. The modern scientific synonyms of the tree are recorded by Blatter (1). The fruit of this plant contains bean-like seeds which are known under the name of Majureira seeds and exported in great quantities from Lorenzo Marquez and other East African harbours. The seeds are used by the natives as emetics, but they contain a harmless tallow-like grease which is used in Europe for alimentary and industrial purposes. Sickenberger (Arzn., p. 62) confirms Dymock's opinion, but independently of him.

The old Persian authors (ABÛ MANSÛB, IBN SÎNÂ) did not give a description of the tree or its fruit. IBN SAMGÛN, however, quoted by IB. (LECL. I, p. 381) says that AB-RÂZÎ mentioned gawz ar-raq° and gawz al-qayy' and their emetic action in the same chapter of his Book on the Divisions of Diseases. We suppose that Gh. abstracted the above paragraph from that book.

ABÛ HANÎFA AD-DÎNAWARÎ (cited by IB. loc. cit.) said: "I learnt from an Arab of the Sarât (3) that ar-rag' was a tall tree as high as a walnut tree, that its fruit resembled a fig or a small pomegranate."

IDEES (p. 81), like Gh. identifies gaux ar-raq and gaux al-qayy and adds that it is the fruit of a lofty tree from Sarât al-Yaman (3). "It is shaped like a Christ's-thorn-fruit (nabq 5-1) of Zizyphus Spina Christi Willd.), but a little larger. There are six divisions (hugub -) enclosing between each two a grain like a pine-cone grain. They contain, moreover, a milk-juice." He recommends the seeds as emetics, alone or with salt, milk or oil.

This description can be applied to the fruit of *Trichilia* emetica. Maim. speaks equally of raq' as a great tree and gives

⁽¹⁾ ETHELBERT BLATTER, Flora Arabica (Calcutta, 1919) p. 113.

⁽²⁵⁾ The mountain chain running along the western side of the Arabian platean.

bisila أسلة (Egypt, Dāwod); Pers.: julbān أسلة (Allar). (Qazwīn), jalāl أسلة (Adharbaijān), malk أسلة (Khorassan, a three according to Abo Manson, p. 178), jalābīna أسلة (Nafiov II, 872), qalbaq al-yakidāyya أَسْنَ الْبِيرِيّةُ (" the Jewess' cap"); Turk.: purchaq المراجعة (Avni, p. 262), aq bischaq أن يرتجاق (Bank): Copt.: 20ve; Eng.: chickling-vetch, bitter-vetch, blue-flowered lathyrus; Fr.: gesse (cultivée), lentille d'Espagne; Germ.: angebaute Platterbse, Acker-Platterbse.

216. Gawz Al-Qayy' جوزالی، "Emetic Nut," Mafureira-Fruit (Trichilia emetica Vahl).

(LECL, Nos. 528 and 529).

It is also called gave ar ray جوز القع. It is imported from the Yemen and is supposed to be a kind of sorrel (hummad, Rumex). It is a little larger than a hazel-nut, its colour varying from yellow to white; it has incisions (taket المُحَرِّدُ) on the surface. Drinking of two drachms of its decoction provokes the vomiting of phlegm and (bad) humours, and is useful against plegia and facial paralysis.

COMMENTARY

In Arabic, nux vomics is called gaux muqayyi' & and the Arabic name gaux al-qayy' & ("emetic nut") has been applied by nearly all the modern botanists to the seeds of Strychnos nux vomics L. (Loganiaceae). Dymook (II, 460) was the first to state that there would seem to be no foundation for such an identification. At another place (I, 340) he spoke about Forskal's statement concerning a species (Elcaya jemenensis Forsk. or Trichilia emetica Vahl.) "called rukeh by the Arabs, the fruit of which is their Jaux al-kai or 'emetic nut,' and is used also in hair washes to kill lice, and made into an ointment to cure itch." Trichilia emetica Vahl. (Meliaceae) is a lofty tree, like a walnut tree, frequent in the steppes of Central

⁽¹⁾ According to Lorw (II, 437) derived from Babylonian thallers.

In Egypt, the culture of gulban (Lathyrus sations) is frequent (Musculler I, 544-7, Ramis, p. 121), though lathyrism is unknown.

The second species of chickling-vetch described by Gh. may have been *Lathyrus silvestris* or *platyphyllos* which both have beautifully coloured flowers.

The name gulban or gulubban is half Arabic half Persian. This pulse whose cultivation is so widespread bears many Oriental names for which we refer to the synonyms at the end of this chapter. The Spanish name basila in given by Gh., Marmonides and IB. is probably Latin, a diminutive of pisum, i.e. pea (Italian pisello from which the modern Egyptian term bizilla is, bisila & bisilla in is derived). The (modern) Greek name basilikon given by Gh. may be a diminutive of pisello; it is not in the dictionaries.

IBN GULGUL'S remarkable narrative of the neuro-toxic qualities Lathyrus sativus was repeated by Gh., Idra's and Ibn Al-Awwam (II, 66 foll.). The latter gives a curious Arabic name for the smallest kind of Lathyrus-grains, viz, al-a'rag [29], i.e. "the lame," on account of its paralyzing qualities! He then speaks in detail of the cultivation of this pulse.

Dawon (1, 209) describes five different kinds of Lathyrus, among them the Egyptian bisilla which and a rough and a black kind (Lathyrus hirsutus and niger). He describes the medical use of gulban against diseases of the chest, skin diseases and fractures and says that it may provoke "black-bile" — diseases like elephantiasis and ileus; but he does not speak of lathyrism.

SYNONYMS: Gr.: λάθυρος (láthyros, Theophe.); Let.: cicercula (Piiny XVIII, 124); Ar.: gulbûn, gulubûn الأربية al-anaz المناق (Issa), al-gurainā المنية (the wild Lathyrus, Main.), al-hasaf الحربة (Yemen, Issa), slaltîth شلطبة (Spain, Ibn Al-'Awwâm), al-arag الحربة (the same), hurtumûn مرطبان (Trâq, Loew II, 438), (1) al-khurfâ الحربة (Dâwôd), Naficy), bîgā مادية (Dâwôd),

⁽²⁾ Derived from Syriac harkandari; to-day mostly used for coats (Aseas).

The Author says: There is a large kind of chickling-vetch which is bitter, and edible only after boiling. It is called basile. A...., and in Greek βασιλικόν (basilikon). There is another wild kind which has larger leaves than the cultivated one; its green colour is inclined to be white, and its shoots issue from the very leaves which stick to the twigs at both sides and are hidden from view. At the end of each leaf are three filaments twisted like the filaments of the vine, except that they are thinner. They twist round plants which are near to them. Its flower is quite white or red; it has carob-like pods (kharáríb (علية والمعناة), gousses) in which are grains smaller than lupin-grains (turmus علية والمعناة). If eaten (by women) it acts as a galactagogue.

COMMENTARY

This plant is the well-known chickling-vetch (Latherussativus L., Leguminosae). It seems strange that it is not mentioned by Dioscorides, although the plant, perhaps a native of Caucasia, was cultivated everywhere in Europe since early Greek times. It was known to THEOPHRASTUS under the name of λάθυρος (láthyros). It is now cultivated in the Mediterranean. regions and in the Near East as far south as India. The green husks are eaten by men, while the seeds and the whole plant serve as fodder. It has sometimes, however, poisonous qualities. and IBN GULGUL's allegation, although exaggerated, has somebasis of sound observation. Astier obtained from this pulse a toxic principle, a liquid volatile alkaloid whose action is destroved by heat. When consumed for long periods by animalsor human beings it produces toxic symptoms, called lathurism. This is a kind of paralysis of the nerves of the lower extremities, and in horses also paralysis of the recurrent nerves followed by laryngeal asphyxia. In Bengal (East India), in 1860. four per cent of the population were sufferers from lathyrism (1). Nevertheless this pulse is still much cultivated in our days in India. Its cultivation covers an area of about 500,000 acres.

⁽A) LEVING, Indian Ann. of Med. Science VII, 127; Kirk. Ibidem, p. 145. Both according to DYMOUX I, 490 foll; and A, Buchanam, Lathyriem Report, Calcutta 1904.

Hermoû botanion), 'Eouoù noa (Hermoû poa, Pliny): Lat.: Mercurialis herba (Scribonius Largus, chap. 135 and 184). Mercurialis (PLINY); Ar.: galbab جلوب (Gh.), garbab (IB., DAWOD, 'ABD AB-RAZZÂQ), hashishat "Hermes") خصى هرمس (Gh.), khusa Harmas) حشيشة عطارد Hermes" testicle "), 'asâ Harmas عصي هرسو (" Hermes' stick "). liblâb saahir بنتي اماس (Gh.)(1), hurraig amlas لبلاب صغير "smooth (" Moses' stick," Dawto), bagla "in (Modern Svria), hashishat as-samak حشيشة السمك ("fish's herb," Mod. Svria, Bergge., p. 860): for other names see ISSA, p. 118. Pers. : jalbab - (Vul-LERS), salma who, salma-tara of the (SCHLIMMER), and the foregoing Arabic names ; Turk .: hashishé-el-'Utarid حشيشة العطارد uarfeshivani رفسلاني (" basil of the earth," AVNI, p. 379, SAMY); Eng.: French mercury; Fr.: mercuriale annuelle; Germ.: einjähriges Bingelkraut, Ruhrkraut, Speckmelde.

215. Gulbân كَالِيَّة, Chickling Vetch (Lathyrus sativus L.). (Lect. No. 495).

IBM GULGUL: It is one of the edible pulses. It has square twigs which lie flat on the ground. It has longish leaves which bend on the twigs, and reddish flowers followed by rod-like pods which contain not exactly round whitish grains, which are sweet. They are eaten raw in the spring; they are also dried and cooked. It is a grain which causes flatulence. If a person lies down in the place where it grows, he loses the power of notion because it has a selective action which is extremely harmful to the nerves; we observed people whose power of walking was lost and never regained (2).

AR-RAZI: It is cold and dry, does not contain much nutritive material, and the little in it is noxious. It develops black bile and is harmful to the nerves.

⁽¹⁾ This is, however, the usual Arabic name for the hindweed (Convolutius arcensis L.).

^(*) This last important passage is missing from IB.'s text.

COMMENTARY

There is no doubt about the identity of this plant. The Greek linezostis or parthénion, better "Equoü Boráviov (Hermot botámion, i.e." Hermes' plant") corresponds to "French mercury," Mercurialis annua L. (Euphorbiaceae) a weed frequent in the gardens of European countries of moderate climate. It contains an indigo-producing dye-stuff and mercurialin, an alkaloid of disgusting flavour. It was and still is, a medicinal drug (Herba Mercurialis), one of "the five emollient herbs" (Dragend, p. 378), in use against dropsy and syphilis, and is believed to be an emmenagogue. The "female" plant was probably Mercurialis ambigua or perennis L.

The Arabic name galbūb is in reality Persian (jalbūb ל-ליפּרָי) (1), given by IB. in the corrupt form of halbūb שליים and garbūb הליפיי . The same false spelling is found in Dāwūb (I, 249) and 'ABD AR-RAZZĀQ (p. 163) and passed in to Dozy's dictionary (I, 314 hulbūb ישׁרָי) and Loew (I, 607). Seidel (Mechithar, p. 170) confuses galbūb with the bindweed. The Greek, Latin and Arabic names composed with Hermes or Mercurius refer to the testicle-like fruits.

Dawop adds to Dioscounders' description that the leaves of the plant are downy on one side, and that its roots bear two bulbs, one hard and the other soft (parent root and daughter root).

HIPPOGRATES mentions *linozostis* very frequently (e.g. V, 375, 411-13, 427, 449, IV, 563, etc.) and recommends its use as a purgative in decoction with flour and oats.

SCHILDMANE (p. 370) says that the mercury-plant is plucked in Persia by poor people and cooked as vegetables are, under the name of salma **.

Synonyms: Gr.: λινόζωστις (linzósôtis, Hippocrates, Dioso., Galen, etc.), παρθένιον (parthénion. Dioso.) Έρμοῦ βοτάνιον

را الما كن (4) VULLERS [I, 524) ecromously identifies galbtb with habl al-masthin حيل الما كن (* poor people's rope ") and 'sables 44.2 which are names for "ivy." The same error is found in JORNEON'S and Symmalss' Persian distionaries.

For this caryophyllacea is a frequent weed in Greece, in moist gardens, and takes, during the summer, a very white colour (Berenders, p. 401). This colour is mostly caused by the sting of an insect (Cercopis spumaria) which yields a kind of foam covering the plant. Its root, formerly an official drug (Radia: Behen albi), contains saponin and is used like soapwort (Dragend, 207, Luerssen II, 552), for rheumatism, gout and affections of the lungs.

IBN Sînă (I, 288) cursorily mentions this plant.

IDERS? and Breûn? did not mention it at all.

Dâwôn (I, 275) discusses the different characteristics of the kinds of poppy (Silene, Papaver, etc.).

Synonyms: Gr.: μήμων ἀφρώδης (mêkôn aphrôdês, Dioso.), μήμων 'Ηρωκεία (mêkôn Herakleia, Galen); Lat. (Medieval). papaver herouleum; Ar.: gásás שُمُونُ (IBN Sĩnâ), khashkhásh sabadî شُعْطَاسُ ذِيدُ (IB.), bulbás بالمون (Ÿ Vollebs I, 257); Pers. and Turk.: same names; European languages: no names.

214. Galbûb , French Mercury (Mercurialis annua L.). (LEGL. Nos. 478, 689 and 803).

It is the small bindweed (lablab saghir بلاب صغير).

GALEN VII (XII, 63): Its flower relaxes the bowels.

Drosc.: The decoction of both kinds purges bile and (bad) liumours. A pregnant woman who drinks of the male kind gives birth to a male, and of the female kind gives birth to a female. an na'ga غيل التحوي (Modern Algeria, all three given by Schweinfr. p. 223), 'ushbat al-khariff عشية الروف (Algeria), simsim barr عشية (Algeria); Pers.: jabr âhank جب (Syria); Pers.: jabr âhank قرفال (Syria); pers.: jabr âhank جبلائة, jablahank خبائة (Jabrahank جبلائة), jablahank فرد خاربائه (all by Vollers I, 508); Turk.: same names; Eng.: wild sesame; Fr.: sésamoïde; Germ.: wilde Reseda, weisse Reseda.

213. Gasus سوس , (Silene Cucubalus Willd.).

(LECL. Nos. 462 and 797).

There are people who would call it gablahank on account of their similarity in faculty and nature (1).

Dioso. IV (66): μήκων ἀφφώδης (mêkôn aphrôdés), i.e. "the foamy poppy" (al-khashkhâsh az-zabadi (al-khashkhâsh az-zabadi (al-khashkhâsh az-zabadi (al-khashkhâsh az-zabadi (al-khashkhâsh az-zabadi (al-khashkhâsh az-zabadi (al-khashkasha)), because it is white like oream (or foam) (3); it is also called 'Hoanksía (al-khashkasha). The length of its stem is about a span, and its leaves are very (fol. 28 r) small on account of their likeness to those of στρούθουν (strouthion, soapwort, Saponaria officinalis L.). Near to the leaves there are white fruits. The whole of this plant is white; its stem, leaves and fruits are like foam, and its nact is tiny. One ὁξόβαφον (στήθερμον) (3) of it with μελίκοστον (weekkraton, honey-water) is emetic, especially to epileptics.

GALEN VII (XII, 74): Its seeds purge phlegm.

COMMENTARY

This plant was identified by Sparker and Sontherner with Graticla officinalis L. (Scrophulariaceae), a plant whose root has emetic and purgative properties. Nowadays, however, the old idea of Lobelius (supported in modern times by Frank and Lieuelea) that it is Silene Cucubalus Willd. (4), is more likely.

 ⁽¹⁾ See the foregoing chapter No. 212.

⁽⁴⁾ This explanation of the name is not exact; see Commentery.

^(*) See note 2 on page 429.

⁽⁴ SYNONYMES: Silene inflata Sm., Silene vulgaris Gelee, Oucubalus Bahen L., Lychnis, Behen Scop. Behen vulgaris Lis.

IBN Sînâ (I, 283 foll.) says that the Indian gabláhank جبلاها), as he spells it, resembles hedge-mustard (tûdarî פֿננט, Sisymbrium officinale Scop.).

ABÛ MANSÛR (p. 181) gives an extract from Drosc.'s paragraphs and a lengthy description of the emetic effect of the plant and its treatment by clysters, hot baths and milk diet.

IDRISI (p. 94) did not recognise the identity of gablahank with DIOSO'S sesamoides, but gave an interesting quotation from HUNAIN IBN Is-HÂQ who said: "It is a yellow remedy shaped like the fruits of the turpentine-tree (habba khadrâ' عَبْرُهُ hot and strongly emetic."

دند أسود IBN GAZLA says that its seeds are called dand aswad دند أسفر, the bark of its root dand asfar دند أصفر, (black and yellow Croton").

Dawôn (I, 204) gives a quite different description: "Gablahang Arth: is a Syriac name; sometimes the "1" is placed before the "b" and it is also spelt with "k." It is a black plant with thick rough bark covered with down. It has red flowers followed by seeds like mustard-seeds, but yellow, bitter ard acrid. This plant is imported from Armenia and the boundaries of Asia Minor. Its faculties last for four years. It is houndaries of Asia Minor. Its faculties last for four years. It is nead dry in the third degree. It is useful for quinsy (khundq ibi), asthma (rabw 2) and facial paralysis (laqua vi), and it expectorates tenacious and thick phlegm by means of its emetic action...... All that has been said about it otherwise is untrustworthy. We have to administer it with the greatest discretion."

This is again another plant and certainly does not fit with Drosc.'s description.

Synonyms of Reseda alba L.: Gr.: σησαμοειδές (sêsamoeidés, Hippogrates II, 515), σ. τὸ μέγα (sêsamoeidés to méga., Diosc., Galen); Lat.: sesamoides, sesimoides (Pliny); Ar.: gabláhank جارات (IBN Sînà), gablahank جارات (IBn), galbahank جارات (IBn), dasûs at-kharûf دُيل الخروف , dhail al-kharûf بمدوس الخروف, dhail

UNKNOWN AUTHOR (3): There is another plant called al-gablahank that grows in swamps and resembles papyrus (bardî خاع). Its bark is the black turpeth (at-turbud al-aswad التربد الأحدود) (3), but the It grows in India and in Soghdiana (as-Sughd) (3), but the Indian kind is better. The drinking of a drachm of it is dangerous; it is emetic and purgative. Some (physicians) succeeded in curing hemiplegic persons with it.

COMMENTARY

Botanists agree to recognise in the first or "great sesamoides" of Dioso, and GALEN the wild sesame (Reseda alba L.). a plant of the Mediterranean regions. It has been found in Egypt (MUSCHLER, p. 439; RAMIS, p. 98). The name aublahank is a corruption of the Persian jabr thank حمر أهنك meaning of this name uncertain); for the numerous corruptions of this name see the Synonyms at the end of this chapter. Sprengel calls it Reseda mediterranea, FRAAS Reseda undulata (8), both of them common weeds on rubbish-mounds in Greece and Italy. As to the "small sesamoïdes" of Drosc. (IV, 163) the old botanists identified it with Passerina hirsuta L. (Thymelaceae), while Sprengel thought it to be Reseda canescens. Fraas Ambrietia deltoidea D.C. (Cruciferae). Concerning the Soghdian and Indian plant quoted by the "unknown author." we could not find a trace of it in DYMOCK'S book. VULLERS (I, 508) gives, from Persian sources. the information that gabr chank is the name of the seed of a thorny plant, zard-khdr زرد خار (" vellow thorn "), whose bark is called turbud-i-zard יל נני ("vellow turpeth"). Low (III, 132) was equally unable to give an identification for gablahang which seemed to be a Reseducea. Some of these plant-groups contain bitter and acrid substances which are emetic without having the disastrous effects described by Persian authors.

⁽¹⁾ This author is quoted by Iss Sint (I, 283).

^(*) A region in Central Asia; in the text Sciid (Upper Egypt), copylst's bhundar.
(*) Lerrate, Guerre complètes d'Hippocrais, II (Paris, 1840)) p. 515, translated sess-monides by Isopyrum thatictroides L.

212. Gablahank L. "Wild Sesame" (Reseda alba L. and others).

(LECL. No. 496).

Drosc, IV (149 and 163); ongquosibéc (sésamoeidés). The inhabitants of Antikyra (1) call it "hellebore" (kharbaa جريق). It resembles holyépov (érigérôn, groundsel, Senecio vulgaris L.) and "rue" (sadhab المانية). It has long leaves, white flowers and a root which is of no use. Its seeds are like sesame (simsim en"), but of bitter taste.

GALEN VIII (XII, 120): This plant resembles hellebore.

Drosc. : Drinking of half an ôξύβαφον (oxibaphon) (2) of its seeds finely pounded with realizogrow (melikraton, honey-water) helps the vomiting of phlegm and pus.

As to the small sésamoeidés, it is a plant with twigs of about a span long, and leaves like πορωνόπους (korônópous, harts horn, star-of-the-earth, Plantago Coronomus L.), except that they are rougher and smaller. At the ends of the twigs there are capitula of nurplish colour, white in the centre, and containing seeds like sesame of hyacinth-red colour. Its root is thin.

ABÛ GURAIG (3): The gablahank is of two kinds, one red and the other yellow. It is a kind of seed like sesame which is powerfully emetic.

AR-Razi in the Mansuri Treatise: It is hot and may sometimes kill the person who drinks it, through the violence of vomiting.

And in his book On Aliments (4): Sometimes if fish, living n swamps in which al-gablahank grows, is eaten, very violent romiting might occur.

⁽²⁾ This name spelled sometimes Antikirvia, belongs, to two Greek towns, one in hessalia and the other in Phokis; both were famous for the active hellebore growing in neir neighbourhood.

^(*) i.e. a small vinegar-sancer or earthenware vessel; this is an interesting variant of rosources' Greek text.

⁽⁷⁾ See Introduction No. 29, p. 18 (IRIS GURARS).

⁽⁹⁾ Another Treatise of or Réat; see Introduction No. 28, p. 10. This book was ablished in Cairo in 1888, but is now out of print and very rare; كاب منافع الأغلبة ودفع مضاوط الآبي بكر يجد بن زكر ياء الرازي. مصر ه ٢٠٠٠

marshes (1). Its leaves are like those of the white beet (silq ,i), and appear at the surface of the water; they are covered with down.

GALEN VIII (XII, 107): It is refrigerant and astringent, and is suitable for itch and malignant and indolent ulcers.

COMMENTARY

The plant in question is *Potamogeton natures L.* (pondweed), an aquatic plant frequent in the fresh waters of Europe and Asia. It is found growing in the ponds and canals of the Egyptian Delta together with *Potamogeton lucens L.* This latter was known since the remotest Antiquity by numerous representations in relief, in painting and on the bodies of hippopotamus-statues (*).

The medicinal use of pondweed was always limited and is to-day unknown in Egypt.

Identify (p. 86) mentions it and simply copies Dioscurings's sayings; 'Abd AB-RAZZAQ (p. 93) does the same, Dawod (p. 202) gives a more independent description of the plant, but commits the error of believing that it does not yield flowers or fruits. He finds it bitter and useful against diarrhoes.

⁽¹⁾ The Arabic name gar an asks is the translation of potenogesion, i.e. "neighbour at the river."

^(*) See Ludw. Krimen, Le Polomogelon Incess L. dans l'Egypte Ancienne. Revued. PEgypte Ancienne I (1927) 183-197; the Same: Nouvelles recherches as sujet du Potanogelon Incess dons l'Egypte Ancienne, Ibidem II (1929), 210-63; the Barne: Notes additionnelles. Ibidem III (1930), 36-41.

COMMENTARY

The botanists of the XVIth century were baffled by the question of what might be the holosteon of Dioscurroes. Lobellus and Dodonaeus pleaded for Plantago albicans L., while Tabernaemontanus (1) identified it with the caryophyllacea Holosteum umbellatum L., the very common chickweed of European and Asiatic temperate lands. It develops its white flowers on sandy and grassy hills and mounds, particularly in the spring.

The Arabic name gabra in is derived from the verb gabara. "to reduce, to restore, to set bones" because it was used as compresses to set broken bones and to reduce meat by boiling and to form a jelly (*). This name seems to be proper to the Hispano-Moorish botanists, as it is missing from IBN Sina's and other Eastern scholars' works.

Dâwôn (I, 203) says that chickweed is more frequent in the West and that, when once plucked, it is spoiled within three months unless it is preserved in honey. The ancient doctors called it gâmi' al-lahm خط العجم ("joiner of flesh"). He recommends it externally for wounds and fractures, and internally as a reconstituent to heart and blood.

In European medicine it was never used much.

SYNONYMS: Gr.: Ólógteov (holósteon, Diosc.), Ólógteov (holósteon, Galen); Lat.: same names (Pliny); Ar.: gabra جبرة (Gh., IB.), gâmi al-lahm المحرات (Dâwûd); Pers. and Turk.: no name; Eng.: chickweed; Fr.: holoste ombellée, holostée en ombelle; Germ.: doldenblütige Spurre.

211. Går an-Nahr جاد النهر, Pondweed (Potamogeton natans L.).

(LECL. No. 461).

Drosc. IV (100): ποταμογείτων (potamogetiôn). It is so called because it grows in the neighbourhood of rivers and

^(*) In his pharmacognostical treatise (New wollkommen Kräuterbuck, edited after his death, by Baummus, Basha, 1613) p. 543.

^(*) According to IB (LEGL. I, 167).

PLEMPIUS, in his translation of the Canon Avicennae (II, 267) gives it the name of Ocimum caryophyllatum. We may also mention here that Deageneoury (p. 587) identifies gamsifram with the Indian Ocimum gratissimum L., and that our Turkish anonymous drug-book gives the Turkish and Persian names which are missing from the dictionaries.

Whether the plant is identical with jawan isparam or shibram وان شبرم ، جوان أسير م وان شبرم ، جوان أسير م عوان أسير م sure:

SYNONYME: Ar.: raihân Sulaimân (בילי שליט ישליט, gamsifram ביליי שליט, gamsifram (ביליי שליט, gamsifram (ביליי קיילי, gamsifram (בילייט, קיילייליט, gamsifram (בילייט, ביליט, gamsifram (בילייט, gamsifram (ביליט, gamsifram (בילייט, gamsifram (בילייט, gamsifram (בילייט, gamsifram (בילייט, gamsifram (בילייט, gamsifram (בילייט, gamsifram

210. Gabra ..., Chickweed (Holosteum umbellatum L.). (LECL. Nos. 179 and 469).

It is called in (Spanish) vernacular une pieza (3) or "uniting the few."

Droso. IV (II): δλόστεον (holosteon). It is an annual plant, about three or four fingers long. It has leaves and twigs like those of πορωνόπους (horonópous, star-of-the-earth, Plantago coronopus L.) or couch-grass (thi ປ໋ -, Agropyrum repens Beauv.). They are astringent. Its root is very thin like hair, white and having a vinous odour; it grows on hills.

GALEW VII (XII, 88): It is desiccative and astringent, and is drunk with wine against muscular contractures.

⁽¹⁾ For other names see Issa, p. 126.

⁽²⁾ The name jestigen is a Turkish corruption of basilikon.

⁽³⁾ Probably so; IB. (Arab, text I, 67 last lines) spells was bdgs 4-1 [1]; this Spanish name is said to be used by Inv Hasabw (Inv Guzcuz). The name refers to the use of the plant for making meet-jelly. See Sincotwarp p. 566.

poly-germander, mountain-germander, cat-thyme, hulwort; Fr.: polium, pouliot de montagne, germandrée tomenteuse; Germ.: Poley-Gamander, grauer Gamander.

209. Gamsibram جسبر, (Ocimum filamentosum Forsk.?). (Leol. Nos. 511 and 1075).

It is a kind of illy resembling southern-wood (qaisûm فيصوم, Artemisia Abrotanum).

COMMENTARY

The identity of this plant-name is not yet established. Sontheimer thought it was the labiata *Ocimum filamentosum Forsk.*, a kind of basil. But the Persian dictionaries speak of a creeping plant and take it for a kind of bindweed.

IB. states that the name gamsafram منصفري is said to be identical with raihan Sulaiman ريان, and this is true. VULLERS (I, 525) explains that Jam جم is in Persian the name of King Solomon, isparam ريان (1) the same as Arabic raihan دريان , هذه المعقال.

IBN SINA gives two articles on this plant, one (I, 286) under gamsifram ישיילי, without a description, the other under rathân Sulaimân (I, 368) in which he says: "It is a plant growing in the mountains of Isfahân, resembling moist-dill (shibith (shibith)). It is said that its leaves are like those of marsh-mallow (shatmi ישלים) and that its buds are small. It is twisted round trees in the same manner as the bindweed (siblâb ישלים). It is quite possible that the second record refers to the plant called gamsifram. Common people think that Jam (r) is identical with Sulaimân." Then follow the medical uses of the plant, especially for wounds and scorpion-stings.

⁽¹⁾ The name for basil is in Persian originally is paraghts أسيرغم from which all lib-other varieties of synonyms are derived.

GALEN VIII (XII, 106): It has a bitter and a slightly sharp taste. It opens obstructions, is diuretic and emmenagogue and heals extensive contusions. The white kind is more effective in the cure of indolent ulcers.

Drosc.: The decoction of both kinds is useful for the sting of poisonous insects, for dropsy, jaundice and—taken with vinegar—for the spleen.

COMMENTARY

There is no doubt that the small πόλιον (pólion) described by Diosc. is the labiata Teucrium Polium L. (cat-thyme, hulwort, mountain-germander), the large Teucrium capitatum L. (headed germander). PLINY (XXI, 44) confuses these plants with Tripolium. The πόλιον of Theophe., too, seems to be another plant, as it was evergreen and used against moths and for caprification. Both plants are common in South Europe and also in the mountainous regions of Asia.

The Oriental authors mostly repeat Diosc.'s description. IEN Sînâ (I, 285) recommends it against fevers, Idrîsî (I, 83) as a vermifuge. Dâwûd (I, 208) gives a Berber name of the plant and a description of a such precision that proves he knew it well. He says that it blossoms towards the end of the month of Hazirûn (February), must be plucked fresh, but that it loses its activity after the lapse of eight months. He recommends it as an anti-dote. It is not used nowadays. The Arabic name is derived from ga'ad ..., i.e. "woolly curled hair."

MAIM. (fol. 80 v.) gives the diminutive gu'aida جعيلة.

Synonyme: Gr.: πόλιον (pólion), τεύθρον (teúthron, Diosc.);
Let.: polium silvestre, polium campestre (Pliny); Copt.: كمنة Berber: شالله (Dâwôd); Ar.: gư'da, ga'da منه , taraf (Dâwôd), misk al-ginn مناك (Lower Legypt, Schweine), gu'aida معلقه (Maim.); Pers.: ju'da معلقه (Abu Mansôb, p. 180), haziya مناه (Turkish Anonymous); Turk.: Meryem sachi, مناه ("Mary's hair," Turkish Anonymous): Eng.

Its names were numerous among the Greeks, Romans, Arabs and Persians (see synonyms). It is a curious fact that the genitive of the Greek name daukos was adopted by the Arabs as the name of the seeds of the wild carrot (daugū • j²), probably taken from δαύπου ἀγρίου σπέρμα (daukou agriou sperma) Galen); see 'Abd ar-Razzão, Leclerc's version, p. 99.

208. Ga'da جعدة, Poly-Germander, Hulwort (Teucrium Polium L.).

(LECL. No. 488).

Drosc. III (110): πόλιον (pólion). There is a mountain kind called τεύθριον (teúthrion), which is in use. It is a small, white θάμνος (thamnos, shrub) with tiny leaves, about a span high and full of seeds (3). On its top is a small tassel which is not globular, and with something like white hair. It is a plant of a heavy smell, but with a slight aroma. There is another kind, bigger than the first, though of a fainter odour.

⁽¹⁾ The Modern Spanish name zanakoria is a remainder of this word

^(*) Aver (p. 104) erroneously spells - - - . (*) In Drosournes' text : "full of fruits."

Dioso. III (52): σταφυλίνος (staphyltnos). It is a plant whose leaves are like those of fumitory (shâhtarag (Δ)), except that they are broader, and its taste is not bitter. Its growth is erect and it has an umbel like that of dill (shibith (Δ)) with white flowers. In the middle of the blossom there is something resembling cotton, of purple colour. It has a root in the thickness of a finger (fol. 27 v.) and about one span long. It is of a fragrant smell and is eaten cooked.

GALEN VI (XI, 862): The wild carrot is less frequently eaten than the cultivated one, but it is more active. Its faculty is the causation of flatulence and the excitement of aphrodiasis. The seeds of the wild kind are diuretic and emmenagogue.

AGRICULTURE: A wine is prepared from it, which is intoxicating; when abused, it causes suffocation being harmful to the throat and chest. The wild carrot expels vermin when suspended on the door of a habitation.

COMMENTARY

The carrot is a very old food of mankind. It is wide-spread as a weed in Europe, and in the Orient from the Mediterranean regions to the mountains of Abyssinia and to the Himalayas. The root of the wild kind of this umbellifera (Daucus Carota L. var Boissieri Wittm.) is thinner and harder than the root of the oultivated one. Its medicinal preparations were very numerous, viz. decoction, paste, compresses for ulcers, etc. In recent times the juice is used for supplying artificially nourished babies with the necessary vitamin A. The root and fruit were in former times official drugs (Radix, Fructus Dauci).

In Ancient Greece it was used as an offering to the god Apollo, and in India still forms a part of the oblations in certain festivals (DYMOOK II, 134). The Hispano-Arab Ien Al*Awwâm (II, 176-9) gives a detailed description of its Mediæval culture.

a myrrh-like smell is exported to Europe by way of Syria. As far as we can tell, it is now very common in the drug-bazaars of the Near East.

Most of the Oriental authors simply repeat Dioscurides' description, adding remarks on the medicinal use of opopanax. Dawon alone (I, 201) gives a new and good description of the plant. He describes the dill-like umbel, but expressly says that the opopanax used in his time (XVIth cent.) and imported from Persia was reddish-black outside (not saffron-yellow) and soluble in vinegar-water. He recommends it as a remedy against lead-colic (qavolang rasâsî وقرائح وصافي). 'ABD AR-BAZZÂQ (p. 86) gives the Berber name for opopanax: tâţarfax المؤرّد the name-barûtha عنيان which we see in our Main.-MS. is perhaps a mutilation of Syriac bârûsû.' (Loew III, 458 foll.).

Synonyms: Gr.: πάνακες (pánakes the plant, Theofhe., Diosc.), πάναξ (pánax, Galen), ὁκοπάναξ (opopánax, the resia); Lat.: panaces (the plant, Pliny), opopanax (the resin) (¹); Ar.: gầwashêr בَاوِسْر, halib al-baṇar حَالِيّ (Egypt, Dâwôd), bardra وَالْمِينَ (Maim.); Pers.: jầwashêr حَالِيْ (Gamy); Turk.: same names and chẩwshêr حَالِيْ (Gamy); Berber: tâjarjar أَوْنِدُ (Gamy); Berber: tâjarjar عَالَى (Gamy); Erg.: opopanax; Fr.: same name, and gommerrésine opoponax; Germ.: Opoponax, Panaxhazz, Heilwuzzsaft.

207. Gazar Jr., Carrot, Parsnip (Daucus Carota L.) (LECL. No. 481).

AGRICULTURE (3): The cultivated carrot has a red kind which is more full of juice and more palatable, and a yellow kind which is thicker and rougher. The wild carrot grows near water, though it is sometimes found in the desert; but this is rare. It resembles the cultivated (kind).

⁽¹⁾ The Greek and Roman physicians distinguished panaless Herakleion, Achilleion, Cheironion, Ligasticum, etc., which we are to-day unable to identify.

^(*) GEOPONICA XIII: baunic (daubis).

on leaves spread out (and) in pits dug in the earth. They sometimes scarify the stem at harvest-time and collect the resin that flows in the same manner. The choicest gum is the bitterest. It must be white inside and saffron-coloured outside, and stick to the hand when rubbed with the fingers. It quickly dissolves in water, and is of a strong smell. It is adulterated with gunammoniac (washaq 5, and wax (mam (3)). This can be tested by kneading it with the fingers in water. The good kind mixes with water and becomes like milk. Its faculty is heating, sedative and emollient.

GALEN VIII (XII, 94 foll.): The root of the opopanax-plant is desiccative and heating, but less than the opopanax (resin) itself. It is detersive and good for affections requiring a flesh-producing remedy such as abscesses. Its fruit is hot and emmenagogue (1).

COMMENTARY

^(*) This chapter of Galam has been very much abridged by BH.
(*) POLAK (Persion, Leipzig, 1865, II, p. 289) calls the plant Diplotacnia cackrydi-like Boiss.
(*) This is an Arabic name for "cow's milk."

and the long zedoary of commerce are both products of Curcuma Zedoaria.

The plant is now cultivated in India, China, Java and Madagascar. The drug *Rhizoma Zedouriae* has a camphor taste and smell. It is used in India mostly as a cosmetic. In Europe it is used for the manufacture of bitter medical liquors.

Synonyms (of the genuine zedoary): Gr. (Medieval): ζουρόμβεδ (zurómbed), ζέδοαρ (zedoar, Artius), τζετουάριον (tzetuarion: Nicolas Myrepsos) (1); Ar.: gadwâr אליי, zarunb יוֹניי 'irq el-kâfâr אליי 'māh-parwîn יוֹניי 'māh-parwîn יוֹניי 'māh-parwîn יוֹניי 'māh-parwîn יִנִיי ', (all by Vullers II, 122); Turk.: jedvâr אליי, בילור Eng.: zedoary; Fr.: (curcuma) zedoaire, gingembre bâtard; Germ.: Zitwerwuzel.

206. Gâwashîr جادشير, Opopanax (Opopanax Chironium Koch.).

(LECL. No. 459).

Diosc. III (51): Πάνακες 'Ηράκλειον (Pánakes Hêrákleion). It grows mostly in Boeotia and in the town of Psophis in Arcadia, and is cultivated in gardens on account of the high price paid for its resin. It has rough leaves near to the soil, intensely green like fig-leaves, round and dentate with five dentations. Its stem is long like that of dorema (kulukh), covered with down like white dust and producing very small leaves. The seeds are fragrant and sharp. It has many roots branching out from one main root; they are white with a heavy smell and are covered with a thick bark of bitter taste. It grows (also) in Kyrene of Lybia and in Macedonia. The resin of this plant is extracted by scarification of the wood when the plant first grows. The colour of the gum is white, but when dried it looks saffroncoloured on the outside. When the resin flows it is collected.

⁽¹⁾ These names probably designate not redoary but turmeric.

Aconium Anthora L. which is called "wholesome aconite" (1). Their bulbous roots are small and not similar to the rhizoma of zedoary.

IDEES (p. 89, No. 194) cites IEN GULGUL that the Spanish gadroft or anthula (sic!) is frequent on the mountains of Andalusia and grows together with aconite.

Dawon (I. 205), says that it is an Indian drug and of five kinds: "One, which is of violet colour, becomes outwardly grey ish when rubbed against any object. He who swallows it feels a sensation of burning in his tongue and lower lip, of about one degree (i.e. of the Galenic dynamometric scale of remedies): it then passes away. It is lank like a little horn, and is a little curved. It is imported from al-Khata (1), one of the boundaries of China. The second kind has the same colour and curvature, but is granular on the outside. It is imported from Cambay (8). The third is red like a thumb, of granular subsistence. and is imported from Deccan (4). The fourth has the size of an olive, with one end thin and the other end thick and its colour is inclined to black. If rubbed against (the inner side of) the lid it provokes lacrymation and heaviness. It is called by the Egyptians an-nirbis النابس (6). The fifth consists of pieces of one span long, which are black, smooth and intensely bitter; they are called al-antula" This description may have been partly extracted from late Persian medical works (mentioned by DYMOOR III, 399 foll.). In Dawod's lifetime, the XVIth cent. the first knowledge of zedoary, turmeric and other curcumas came to the West through Portuguese traders and mariners (Odoardo Barbosa). Dymock (III, 401) is convinced that the round

⁽¹⁾ Spanish antors or "aconito saludable," Germ. "Giftheil," Dutch "tagengiftige monnikekap."

^(*) Probably "Cathay " the present Indo-Chinese peninsula,

⁽³⁾ Near the present Bombay, in British India.

⁽⁹⁾ Central India.

⁽⁹⁾ In the text at-tirbis التربس, copyist's error.

(shaggaran أَنَّهُ) call al-faihaq (المُّهُمُّةُ) (1); we shall mention it under the Letter Fâ أَنَّهُ . The black is round, black outside, white inside and a little yellowish. Its leaves are like those of burnet (huzbarat ath-tha'lab أَرَّهُ الْمُلُبِ أَلَّهُ الْمُلُبِّ أَنَّهُ الْمُلُبِّ أَنَّهُ الْمُلُبِّ وَالْمُلُبِّ وَالْمُلْبِ وَالْمُلْلِي وَالْمُلْفِي وَالْمُلْفِقِينِ وَالْمُلْفِقِينِ وَالْمُلْفِينِ وَالْمُلْفِقِينِ وَالْمُلْفِقِينِ وَالْمُلْفِقِينِ وَلِيْنِهُ وَالْمُلْفِقِينِ وَالْمُلْفِقِينِ وَالْمُلْفِقِينِ وَالْمُلْفِينِ وَالْمُلْفِينِ وَالْمُلْفِينِ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّهُ وَاللَّالِي وَاللَّهُ وَاللَّالِي وَاللَّهُ وَاللَّالِيلُولِي وَاللَّهُ وَاللَّالِي وَاللَّهُ وَاللَّالِي وَاللَّهُ وَاللَّالِمُ اللَّهُ وَاللَّهُ وَاللَّهُ

COMMENTARY

There is a considerable confusion of names and facts in the above paragraph, mainly due to different varieties of the drugs called *gadwar* = zedoary. IB., therefore, rightly divided the contents of this section into two main paragraphs.

The Persian name zadrośr icel from which the Arabic gadis derived designates the zingiberacea Curcuma Zedoaria Rosc., the zedoary (formerly also called setwall). It is, like all the curcumas, an Indian plant, and its rootstock was only known to the physicians and druggists of the Near East. It was well known to the Indian practitioners under the Sanscritnames of sati and krachura. IBN Sînâ is right when he compares its root to that of aristolochia. All the other Persian and Arabic authors agree that it is an excellent antidote for poisons. As mentioned before (2), an Indian myth says that the wild aconite (bish), when growing near the gadwar, loses its poisonous properties and is eaten with impunity by the inhabitants of the Himalayan mountains (DYMOCK III, 400). It seems, however, that this myth can be explained by the simultaneous occurrence on the Himalayas of poisonous and non-poisonous aconites growing side by side. The belief was transferred to Spain. The name tawara dele of a kind of aconite may have been confused with jadwar which, in Turkestan, is still to-day a name for the monk's hood (Aconitum Napellus L.) (DRAGEND., p. 226). The antagonistic plant, antula (3), is considered to be the non-poisonous

^(*) Probably a mis-spelling for al-faigan أأمين, i.e. physican.
(*) See chapter on Bish No. 182, p. 342.

⁽³⁾ The maine may be Spanish; according to Smanzer (Gloserio de voces ibericas y latinus usadas entre los Mozarabes, Madrid 1888, p. 18) it is derived from Greek antiphthord (="against destruction"); and taudra is derived from pitchord (Simouet p. 548).

dawô al-hayya براه الله , thum al-hayya أوم الله ("), kaff adh-dhè'b أو الله ("wolf's claw"), kaff al-arnab كف الأدب ("rabbit's foot," Issa, p. 86), bashilishku مناه الله الله (basilisco, Spanish); Pers.: same names and kushad or gushdah والله و

205. Gadwar جلوار, Zedoary (Curcuma Zedoaria Rosc.):. (Lieu. Nos. 467 and 174; moreover 1479).

IBN Sînâ (I, 287): They are small fragments in the sizeand shape of aristolochia (*carâvand ناونة*), though thinner. They grow together with wild (Indian) aconite (*bîsh يشن*) and are an antidote for all poisons.

IBN AL-KATTAN(3) and other modern authors called it al-antula: الطوارة the wild aconite which grows with it is at-tawâra الطوارة; the wild aconite which are like small acorns, and is useful against poisons and colic. Growing with it is at-tawâra, which is a deadly and quick (?) poison. These plants grow so near to each other that he who sees them thinks that they come from one and the same root, on account of their likeness. This poisonous herb is sweet, but al-antula is bitter; the latter is a marvellous antidote (diryâq عدرات العراق) which can be a substitute for the fârâq-antidote عدرات العراق العراق

AUTHOR: Al-antula is in our land (Spain) to-day of two-kinds; one is known as black antula أنشله سوداء, taken to be the zedoary, and the other the white, which some of the herborists.

⁽¹⁾ The meaning of these terms is "serpent's medicine " and "serpent's garlie " ("And -AR-RAZZZQ, p. 96).

^(*) This latter name is according to 'ABD AR-RAZZÂQ (p. 95).

^(*) His name is often mis-spelt Isw at-Kurlett: Gh. and Identificall him. אָיַוֹלְאֵלִי אָּנָּ and 'Ardalatam Mutamana, born in Signity (Catania t) and immigrated into Spain. the Xth cents A.D. He lived in Corplova where he was a distinguished practitionner.

mountains in the Balkan Peninsula. It is a strong root-stock, sometimes 60 cms. long and 4 cms. thick, containing a bitter glucoside gentiopicrin and gentianic acid, with an etheric oil and a mucilaginous substance (1). The Persian kind mentioned by IBN TIMRAN may have been a variety of G. lutea or G. asclepiadea L. or the Cashmirian G. Kurroa Royle (DYMOCK II, 510) Gentian had in former times a great reputation as an antidote against poisons, poisonous stings and the bite of rabid dogs. It is possible that from this belief comes the Modern Greek (?) name of basiliskon and the Spanish name of basiliskon which are mentioned only by the Arabic authors IBN WARD, GH., MAIMONINES and IB. The Arabic name dawd al-hayya Lelis ("snake remedy") is significant of its pretended action.

The Cairo bazaar-druggists sell the root of Gentiana lutea in fragments of about 2 cms. long under the name of khashab gintiyana خشب جنطانة. It is used as a stomachic, cardiac tonic and wound-healing remedy (Ducros, p. 37 foll.).

The old Persian and Arabic authors give good descriptions of the reddish-brown root of gentian with the yellow surface of its fracture (2), but none of them had ever seen the plant which grew far from inhabited places in the mountains. Due to this fact, ABÛ-MANSÛR (ACHUNDOW, p. 180 and 185) believed gentian to be "the root of the Roman colocynth" (al-hanzal ar-rûmî (1)). The confusion comes without doubt from the very bitter flavour of the gentian-root and the colocynth-fruit.

Dâwûn (I, 214) says that gentian reaches maturity in the months of Ab and Aylûl (3), that the root preserves its properties for three years and that the juice, stored up in earthen receptacles, can continue to be efficient for seven years.

For its other constituents see H. G. Greenen, Materia Medica, fourth edition, (London, 1924) p. 355 foll.

⁽⁴⁾ Qdnila Inn Sini I, 283.

⁽³⁾ Syriac names for August and September.

(basikskon) (1) and in Spanish vernacular basiksco. In Ward (2) asserted that basiksco is (identical with) the gentian described by Dioscurious; but this was an error.

Dioso. III (3) γεντιανή (gentianê). It is said that the first who knew this remedy was Gentis, king of the Russians (3) and that the name of this remedy is derived from his name. It is a plant whose leaves, that are near the root, resemble those of the walnut-tree or the leaves of the way-bread (lisân al-hamal Lipi). Plantago major L.). Their colour is almost blood-red. Those of the leaves that are in the middle and at the end (of the stem) are slightly dentate (4), especially those that are near to the top. It has a hollow stem, smooth and as thick as a finger. It is about two cubits high, knotty and with sparse leaves on it. It has many flowers (5) and fruits in large calyees (cones), as light as the fruit of σφονδύλιον (sphondýlion, hogweed, Heracleum Sphondylium L.). It has a long and thick root resembling that of aristoloch (zarāvand λίμι). It grows on lofty mountains, in the shade and in watered places.

GALEN VI (XI, 856): Its root is strongly refining, detersive, and aperient to obstructions. This is not to be wondered at, as it is intensely bitter.

Droso.: The dose of one drachm of it with pepper and rue is useful against (fol. 27 r) the bite of venomous animals, pain in the chest, liver and stomach. As a pessary, it is abortive.

COMMENTARY

The drug in question is the root of one of the kinds of gentian. That described by Droso is Gentiana lutea L., the yellow gentian which may have been originally a native of the

⁽⁴⁾ In the text basiaseds ناسليمان , the spelling is not quite sure; the following word is spell bashlashka هناه، but Mans. gives the vocalisation bashlishka.

^(*) See our Introduction, p. 23, No. 40.

⁽¹⁾ In Droso's text : Illyrians.

⁽⁴⁾ This is not quite correct, as all the gentians have ovoid, but not dentate leaves

⁽⁵⁾ Missing from Droso's original text.

زالمه بالمدانية بالمه بالمدانية (PGh.), asad al-'adas المدالمدس المدانية ا

204. Gantiyana المثاناة, Yellow Gentian (Gentiana lutes L.)

(LECL. No. 515).

Is-Hâq B. 'Imrân': There are two different kinds of gentian, one is a herb that grows on mountains and in cold, wet and snowy places; this is the Greek (rûm على). The other is that of Jurmayân المراقبة (a). It is like sorrel (hummâd al-bayar المراقبة , Rumex Patientia L.) and has a black root which is somewhat bitter. It equally grows in damp places.

AUTHOR: The gentian mentioned by DIOSCURIDES is the second of these two kinds. The first kind is much more used in our land, Andalusia, than the second. It is found in the Sierra Nevada (4) and in the region of Saragossa (Saragusta Nevada (4) and in the region of Saragossa (Saragusta Nevada (4) and in the region of Saragossa (Saragusta Nevada (4) and in the second kind is the root of a shrub with thin branches and tiny leaves. The root is intensely bitter, much more so than the second kind and more active. It is said that this kind of gentian is Persian. It is called in Persian kūshūdh (4) and in Greek βασιλίσκον

⁽¹⁾ As to the meaning of these names see above p.

^(*) NATEUY and HANDJÉRI give, moreover, the name of biging 4A₂, but this must be a mistake, as the latter name designates turted or hitter vetch. See above chapter 131 (166a).

⁽³⁾ The MSS. of IB. mis-spell this name أخرمقاني والجارمعاني and so on. According to اخرمقاني 1. And so on. According to كثيرمقان Starmagets. أخرمقان Charmagets و خرمقان is the name of a small town in the mountains of Khurüssin (East Persia) near Isfarñyin.

⁽⁴⁾ In Arabio Gabal Shulair جبل شاير : mis-spelt in MSS. T. and G. ; IB. calls it Gabal -Shakar and Liscense left it out.

but rather yellow. Its root is as thick as a finger. It grows during the dryness of the summer season. It is sometimes boiled and eaten like asparagus (hilyawn مطيون), and sometimes eaten raw. It is believed that if mixed with other grains, it accelerates their cooking.

GALEN VII (XII, 92): It is desiccative and refrigorant in the second degree.

COMMENTARY

The plant in question is one of the kinds of broom-rape, Orobanche. Theophe. (VIII, 8, 4) described, under this name, the dodder (Cuscuta europaea), but this latter plant bears in Dioscurides' Materia Medica the name of ἐπίθυμον (ephithymon)(1). His orobanché corresponds to Orobanche grandistora Bory, a parasitic root-plant which is frequent in Greece where it still bears in our days the name of λύκος (lykos, "wolf") because it kills what is sown (Berendes 230). The broom-rape, whose shoots are eaten like asparagus, is Orobanche caryophylacea Sm. These two kinds correspond best to Diosc.'s description; but have are still others which are in medicinal use, e.g. Orobanche alba Steph. and Orobanche gracilis Sm. (Dragend., p. 613), both used against colic, spasms and nervous affections. Its official name was Herba leonina.

As to the meaning of the name go'fil, all European dictionaries are silent; but in Lisan (XIII, 119) we find that the root that the meaning of "to overthrow and to fell down." The other Arabic names are mostly translations from Greek.

Later Arabic authors did not provide any valuable contribution to the knowledge of this drug. IB. gives as an Egyptian Arabic name hall is, i.e. "destroyer," which is in all probability Coptic Salvors, see Labib's Dictionary.

Senonems: Gr.: ὁροβάγχη (orobánkhê) κυνομόριον (kynomómion, i.e. "dog's penis"), λέων (léôn, " lion "), θυρσίτις, θυρσίνη

⁽¹⁾ See above, chapter 80, up. 179-182,

ליינות (Yemen, Issa, p. 77), אולה אוליים (Schweine.), katha בליינות (Yemen, Issa, p. 77), אולה אוליים (Schweine.), katha בליינות (Maim, fol. 81 r). The wild rocket: girgîr barrî בליינות היינות (Maim, fol. 81 r). The wild rocket: girgîr barrî בליינות היינות הי

203. Ga'fil, مفيل (3), Broom-Rape (Orobanche).

(LECL. Nos. 201 and 489).

المشيشة الأسلام (مشيشة الأسلام) It is called "the lion's herb" (hashishat al-asad المدالة) "lentil's lion" (asad al'adas المدالة) and "strangler of the bitter-vetch" (4) (khâniq al-karsana خانق الكرسة), because it kills turmeric (wars مناه) and bitter-vetch (karsana كرستة) if it grows amongst them.

Dioso. II (142): ὁροβάγχη (orobinkhê) or strangler of the bitter-vetch is so called because if it grew near to any kind of seeds, it killed all (the plants) in its vicinity. It is also called κυνοχώριον (kynomórion), and the Cypriots call it θυροίνη (thyr-sinê) (b). It is a reddish stalk about two spans or more in height. It has leaves (b) which are viscous and covered with tender down. The colour of its blossom is not inclined to white,

⁽¹⁾ i.e. "the vegetable of 'A'isha " (the favourite wife of the prophet Mt 'amunad)

⁽a) Name used in Sistân ميسئان (South-cast Persia).

⁽⁴⁾ T. roads gwaift معيد , but G., IB. and all the later authors spell it ga fit المعيد ,

⁽⁴⁾ Translation of the Greek name orobusché.

⁽⁵⁾ Wellmann's new edition of Droso, reads θυροῖτις (thyratis).

^(*) Droso, says that it has no leaves; the leaves are reduced to scales on se stam

COMMENTARY

This is the crucifera *Eruca sativa Lam*. and its wild variety, frequent in Europe, cultivated on account of their seeds which are sharp and act as substitutes for mustard, and in Central and North-west India for the production of lamp-oil (1). In warm climates the seeds are richer in oil than in the North. Its medicinal action is like that of mustard. It was an official drug (*Herba* and *Semen Erucae*). The different kinds of girgle described by the old authors may have been wild-grown varieties of *Eruca*, but also *Erucastrum Pollichii Schimp*. & *Spenn*. and the like.

IBN AL-'Awwam (II, 301 foll.) gives details on the cultivation of rocket.

Dawon (I, 206) ascribes to rocket a certain action against poisons and the bite of rabid dogs.

The great number of names existing for cultivated and wild rocket in Persian is remarkable

Synonyms: Gr.: εύζωμον (eucomon, Theophe., Dioso.); Lat.: eruca (Virgil, Pliny), uruca (Pliny); Ar.: girgîr אילייל (pronunciation in Modern Egypt gargîr), girgîr איליי, gargîr,

⁽²⁾ DYMOOK I, p. 130.

^(*) Perhaps from Assyrian gingiru (Louw I, 491).

^(*) See above, chapter 114 (Inn 'Ins).

202. Girgîr 4.7., Rocket (Eruca sativa Lam.) and others. (LECL. No. 473).

AGRICULTURE (1): The rocket is of two kinds cultivated and wild. Each of them has also two varieties. The first variety of the cultivated rocket has broad leaves of pistachio-colour, is slightly acrid, tender and fragrant. The second has narrow leaves with dentate edges and is strongly acrid. The first of the two wild varieties has leaves like those of mustard (khardal (2)) and is very acrid. It is collected in the month of Haxfrand (2). (2)

Another Author (3): The wild rocket is al-aihuqûn בּילוֹם (" the rough"), which some people call wild (fol 26 v) mustard (khardai barrs (جردل علي). It is a shrub standing on a green stem with leaves that are rough to the touch like those of radish (fugl الله blossoms small and yellow, compact, following the grains in long (HUSKS) (4). It is strongly acrid and is eaten with feculents The second kind has rod flowers.

ABÛ HANÎFA: Al-aihuqûn is the wild rocket; it is a shrub which grows during winter, has a red flower and broad leaves; it is eaten but is bitter.

DIOSC. II (140): $s\ddot{U}_{\omega}$ wav (elization). Its continual use as food increases the inclination for coitus, and so does its $see c_{\tilde{u}}^{*}$. The latter is diurctic, stomachic and aperient.

There is also a wild kind of rocket in the west of the land of the Khazar (*), where the inhabitants make use of its seeds instead of mustard. It is more diuretic and more acrid than the cultivated (rocket).

⁽²⁾ Geogranies XII, 10.

⁽²⁾ The Syrian month of February.

⁽³⁾ IB. (LEGL. I, p. 349) falsely attributes this paragraph to Gh. himself.

⁽⁴⁾ This word is missing from T. and replaced in G. erroneously by "twiga."
(4) i.e. Southern Russia; IB. reads Khūz, i.e. South-west Persia; the original text of Droso, reads, however, Theria, i.e. Spain.

The name gâwars or gâwarsh - שלפנים is Persian (gâwars לאניט is Persian (gâwars שלפניט and perhaps cognate with Greek kenkhros. It has been discussed as an aliment and remedy by Abû Mansûr (p. 177).

IBN Sînâ (I, 288) speaks of three kinds of millet, withoutgiving their description. Dâwôd (I, 201-2) says that in the Sudan the natives extract from millet a sweet juice. He describes three kinds: one is yellowish with grains of the size of a lentil; the second oblong, small, rice-shaped, and the third round with well-separated grains. The first is said to be the best, and the last the worst. There are, indeed, many varieties of millet, but Dâwôd and other Oriental writers often confused millet with "Egyptian or Indian millet" (gâvoars hindî with sweet kind mentioned by Dâwôd is probably Sorghum saccaharatum Pers.

IBN AL-'AWWAM (II, 74-77) renders gâvars by the Arabic dhura is, which is incorrect. His dukhn is in according to Camment-Mullet, Panicum italicum L., corresponding to Greek: Ékusog (ślymos).

MARMONIDES (fol. 80 v) says that gaus shindt اجاورس هندي (Iadian millet) is sorghum (dhura).

SYNONYMS: Gr.: מליניס (kénkhros, Theophe, Diosc.); Lat.: milium (Viegil, Pliny, etc.); Ar.: gâwars שלים, gâvarsh שלים, לעניים, לעניים ביים (Ien al-'Awwâm), dukhn ביים (Ir reality the name for sorgho), ta'âm rûmê ביים ליים (Yemen, Schweine p.188), du'â' ביים ביים (Yemen, Schweine p.188), du'â' ביים ביים (Yemen, Issa), âhura hamrâ' ביים ביים (Syria' Dâwôd), dhura baidâ' ביים ביים (Nawoy); Pers.: gâvars שלים, basal ביים ביים (all these names are given by Vullers II, 947; they probably designate different kinds of Panicum and Sorghum); Turk.: jâvers ביים ליים ליים ביים (Syria' panic-millet, panic-millet, panic-millet, panic-grass; Fr.: millet, mil; Germ.: echte Hirse, Rispenhirse;

201. Gâwars جاנניים, Millet (Panicum miliaceum L.). (Lecl. No. 460).

IBN WAFID: It is a kind of sorghum (dubbn بدخن, Andropagen Sorghum Brot.) with small grains, strongly astringent and of grey colour.

DIOSC. II (97): κέγχος (kénkhros). It is the least nutritious amongst the species of corn. It constipates the bowels but is diuretic.

GALEN VII (XII, 16): It is cooling in the first and desiccative in the first of the third and in the last of the second degrees. If applied in a bag as fomentations, it is very useful for colic.

COMMENTARY

The millet, the graminea Panicum miliaceum L. and its kinds are amongst the oldest plants cultivated by mankind (1) It has been found in Palaeolithic and Neolithic sites in Italy Switzerland and Germany. In Egypt, the species Panicum was not found before 1910, and seemed to have been unknown. Recently however, Netolitzky found millet in great quantities in the bowels of Prehistoric or Protohistoric bodies (2); he was able to determine the grains as those of Panicum colorum ("Shama-millet") which was certainly cultivated in Ancient Egypt and still is, in India-Not one of the several names for corn and its kinds used in Ancient Egypt can be identified with Panicum miliaceum. The cultivation of this plant in Egypt seems to be of a rather recent date. Actually, the millet is cultivated in Egypt, and sometimes occurs spontaneously (Rams, p. 36).

In Central Asia it is an important food of Mongolian tribes.

⁽¹⁾ Because it easily grows in any kind of soil and quinkly ripens, so that even Nomadic tribes are able to cultivate it.

^(*) Nunclayary, Nahrunge-und Heilmittel der Urägypter. In Die Umechan XV (1911), p. 55. The Same, Neue Frande grühisterischer Nahrunge-und Heilmittel. In Hommage international & Tlaineralle de Grèce, 1911, p. 235 foll. The Same, Hiere und Cyperus aus dem prävisterischen Aegypten. In Beiblatz & Bolom. Centralbiatz, XXIX (1912) II 19. Wo over these references to the kindness of Dr. L. Kudum.

pear-tree (hummathra barra (3)) (1). It has a round grey-coloured fruit which, when eaten, fortifies the bowels. This plant is common in the Zab in the region of Qairawân (2).

THE AUTHOR: This tree is known in the land of the Berbers (Morocco) under this name; they use its bark for tanning hides. IBN GULGUL said that it was al-ghubaira الفيرا (the service tree, Pirus Sorbus Gaertn.), but it is not.

COMMENTARY

IB., in his corresponding paragraph, left out this discussion of IEN GULGUL'S sayings and replaced it by a more detailed description copied from IB.'s teacher, ABU'L 'ABBAS AN-NABAT!. His description of two kinds of red fruits agrees more with that of Pirus domestica (red fruits like a cherry with hard kernels), but IEN GULGUL'S description of the tree agrees better with one of the white beam-trees (Pirus Aria) which do not reach more than from 3 to 6 metres in height and have brownish fruits. All these kinds of Pirus have astringent fruits, leaves and barks, and are good for tanning.

The name gaudar جود sounds Persian, but Renaud (8) thinks it is Berber. Abu'l 'Abble gives, for the kinds of Pirus described by him, the Berber names tazghat خنح and tamah علمة .

SIGKENBERGER (ARZN., p. 63) writes, that in his time (about 1890) in the Cairo drug-bazaars, a root-bark of highly astringent quality was sold, used as a dye-stuff and known as galderic Siokene. identified it with the bark of the anacardiacea Rhus cayacantha Cav. So the opinions on the drug in question still show wide divergences. Therefore we think that it is useless to give any synonyms.

⁽¹⁾ Pirus communis var. Achras L.

^(*) Kairuan in Tunisia.

^(†) H.-P. -J. BWHAUD, Trois études d'histoire de la médicine arabe en Occident Hespéris XI (1931) p. 145.

The Cyprian fig described by Diosc. is perhaps only a variety (Ficus Sycomorus var. ulmifolia?) (Berendes, p. 146).

SYNONYMS: Gr.: συκάμινος Αλγύπτια (sykáminos Aiguptia. ΤΗΣΟΡΗR.), συκόμορος, -ον (sykómoros, -on, Diosc.), συκόμορον Κύποιον (sukômoron kyprion, Diosc.); Lat.: ficus Aegyptia; Egypt.: (nht, the tree), (enkw, the fruit); Copt.:
nroose, (nouhé, the tree), ednor, edno (elko), the fruit; Ar.: gummaiz is (Mod. Egyptian pronunciation gimmez), tin ahmaa ייני ואים, tîn barrî שני, (" wild fig"), bura' צי, khanas the latter three names in South Arabia,, حنس Schweine, p. 165), hamat 1 (uncertain, a wild fig); Pers. : ייב אין (" the Arabs' fig "), anjir-i-'Arab ויאָת عرب (" the Arabs' fig "), anjir أيعر فرعو في fir'quant انجد فرعو في "Pharaonic fig." Naticy II, 900), chindrifirance چنار فرنكي ("Frankish plane tree," NAVIOY II, 900); Turk.: Frangistan chinari فرنكستان چناري (same meaning, Samy), "Arabistan eniri عراستان انجرى fig of Arabis," HANJERI II, 611), yaban enjiri المان (" wild fig," HANJERI IBIDEM), jimmez aghaji جنراغاجي (Samy); Eng.: sycamore-fig, fig-mulberry; Fr.: sycomore, figue d'Adam; Germ.: echte Sykomore, Maulbeerfeige.

200. Gawdhar جوذر, White Beam-Tree ? (Pirus Aria Ehrb ?). (LECL. No. 539).

IBN GULGUL: It is a tree which is not high, with red branches and a thick trunk. Its leaves are like those of the wild

⁽⁴⁾ Dâwôn's contompwary, the Veccian Prosper Alpines gave the first good description of the sycamore-fig in Latin (De plants Asygni, Patavii 1590 pp. 20-22).

from becoming sweet. In our days, the cultivation of sycamorefig-trees in Egypt is the privilege of certain families who know
how to scarify the fruits and how to protect them by nets from
bats and other animals (1). Ludwig Krimer, who is the chieff
authority on the sycamore-fig in Ancient Egypt, published, in
1928, a learned article on element the sycamore-fruit" in Copting
(Acta Orientalia VI, pp. 288-304) in which he gave many
details on the ancient and modern cultivation of this tree and
the fig-tree. The wood has sometimes been falsely identified
with that of the mulberry-tree. The wood of the sycamore-figtree is largely used for coffins and woodwork in houses. In
becomes more solid by soaking in water.

The fruit is less palatable than the fig, but an important food-stuff for many native peoples. Wild sycamore-trees with edible fruits are frequent in many parts of Tropical Africa. In French West-Africa, grafting of figs on sycamore-fig-trees has been successful.

Amongst the Arabic physicians, Is-Hâq B. Sulaimân, Jewish: practitioner of the IXth cent. A.D. (3), a native of Egypt, says: that the Egyptians are very fond of sycamore-figs eaten with. water, and that they use a decoction of the fruits against cough, and catarrh of the chest (according to IB.—Lecl. I, p. 364).

Most of the other Arabic authors, e.g. Innisi, simply repeat.

Droso,'s sayings.

Dâwôn who knew so well the customs and practices of the Egyptians in the XVIth cent., wrote (I, 212): "It (the sycamore-fig) reaches maturity in *Baramûda* (3) and continues growing until *Bâba* (4), because the physicians and the peasants say that it (the tree) gives fruit four times a year, and the common people say seven times. The best kinds are those that

⁽⁴⁾ Ludwin Kamasa, An Ancient Knije in Modern Byppt. In Ancient Bypst III (1928)pp. 65 foll., and Sur quelques fruits reproduits as faience, obc. In Bulletin de l'Institut français d'Arch. Orient. XXVIII (1929) pp. 49-97. Timorum. (I) calls the sycamore-fig-tree "Sypythan"; see the synamyra.

⁽²⁾ See Introduction No. 20, p. 14.

^{(3 &}amp; 4) For these Coptic names of months see above note 2, p. 250 foll.

Drosc. I (127): oun5µ000v (sykômoron) or the dull fig (¹), so called because it has an insipid taste. It is a tree like the figtree which oozes a very great quantity of milk (-juice) and possess leaves like those of the mulberry-tree. It yields fruit three or four times a year. These fruits do not issue at the embranchments of the twigs like figs, but from the trunks like the wild figs. They are sweeter than unripe figs and have seeds which are not as big as fig-seeds. They do not ripen unless they are searified with an iron hook (makhlab -i). It grows abundantly in the land of Caria (Asia Minor), in Rhodes and in regions where wheat grows freely (³). Its fruit is useful in years of drought because it exists in all the seasons. It is purgative, bad for the stomach, and the milk-juice which comes out of its fruit in Spring (³) closes wounds and resolves swellings.

There is in the Island of Cyprus a fruit as large as a plum, though sweeter, resembling in its other features the sycamore-fig.

COMMENTARY

The sycamore fig is the moracea Ficus Sycomorus L. The tree is believed to have been a native of Western Abyssinia but it was, since the earliest times, observed in Egypt where it was often painted in tombs and temples of the Old Empire (IVth dynasty). It was a tree of life and sacred to a goddess (Hathor) who was often represented as giving refreshment and life to human beings (4). The custom of incising or scarifying the fruits with a hook- or loop-shaped knife is equally very old; it served and still serves, the purpose of letting escape the gall-wasps (Blastophagae) which develop in the fruit and prevent it

⁽¹) In the text of T. and G., ahmar ja-¹ ("red"); IB. gives the better reading, ahmag ja-¹ "dall," erroneous translation of Greek σύκον μύρον αβου πόνοκ.

^{(&}quot;) A negation is in the Greek text, but missing from the Arabic one.

^(*) This paysage has been too much abridged by BH.; IB. has the full translation of the Greek text which reads that the bark of the tree is searlified in Spring before the ripening of the fruit, in order to obtain the juice.

⁽⁴⁾ L. Krimber, Sur un bas-relief... représentent la déesse dans le sycomore et la desset dans le dattier. In Annales du Service des Antiquités de l'Egypte, XXIX (1929) pp. 81-88.

As to the Oriental names of nuts, the dictionaries do not give any satisfactory explanation. We are inclined to follow Loew (1) who derives bunduq (Persian, also funduq (it) from Pontikon. This word was applied in later times to globules, pills and bullets. The other name gillavz, said to be Arabic (Art Hantea addition), seems to be equally derived from Persian jillaz and or gillaz and the persian jillaz and the corruption of jilghdza of this drug in Arabic. In Persian, jillavz designates at the same time būdom-i-kūhi (1, 211), i.e. "the mountain almond or the wild almond, with the Persian synonyms bukhrak and the Arabic lavz gabak (i.e. "the same time būdom-i-kūhi (i.e. "the mountain almond "the wild almond, with the Persian synonyms bukhrak (i.e. "the mountain almond "the wild almond, with the Persian synonyms bukhrak (i.e. "the mountain almond "the wild almond, with the Persian synonyms bukhrak (i.e. "the mountain almond "the wild almond, with the Persian synonyms bukhrak (i.e. "the mountain almond "the Arabic lavz gabak (i.e. "the mountain almond shaped kinds of hazel-nut, e.g. Corylus maxima.

IEN SÎNÂ (I, 283) identifies gillawz with "the grain of the large pine-cones" (habb as-sanawbar al-kubâr جب المبور الكبار); but this is a manifest error.

199. Gummaiz ½° , Sycamore fig (Ficus Sycomorus L.).

This is the name for the "male fig" (at-tîn adh-dhakar ﴿الْبِينِ الْبِي اللهِ عَلَيْهِ اللهِ اللهِ عَلَيْهِ اللهِ اللهِ عَلَيْهِ عَلَيْهِ اللهِ عَلَيْهِ عَلِيهِ عَلَيْهِ عَلِي عَلَيْهِ عَلِي عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلّ

⁽¹⁾ Aramasische P/lanzennamen (Leipzig, 1881) pp. 48-49, No. 23.

⁽²⁾ According to PLINY (XV, 88) the hazel got this name from the Campanian town f Abella, where possibly it was first grown in Italy.

shawbaki (בילי (Egypt, for all kinds of nuts, Dâwôp); for the wild walnut-tree (gawz al-gabal جوالبال): dabr (the wild walnut-tree (gawz al-gabal جوالبال): dabr (the wild walnut-tree (gawz al-gabal (جوالبال): dabr (the wild walnut-tree (gawz al-gabal): dabr (the wild walnut-tree (sama's, p. 44). Vernacular Ar.: 'ain gamal (team) ("camel's eye"); 'ain bagar من ("camel's eye"); 'ein bagar والمنافع ("four brains," ("four brains," ("four brains," ("four brains,"); 'Vullers, Steingass); Turk.: jevz والمنافع ("Handjért, Samy); 'Eng.: walnut; Fr.: noix, noix de jauge; Germ.: Wallnuss, Welschnuss.

198. Gillawz جاوز, Hazel-nut (Corylus Avellana L.).

(LECL. Nos. 357 & 502).

It is the hazel-nut (bunduq بندق).

Drosc. I (125): κάρυα Ποντικά (kárya Pontiká) (1). They are harmful to the stomach. If pounded and drunk with honey and water, they cure cough.

GALEN VII (XII, 14): It is a kind of small nut in which there is more of the earthy and cold substance than in walnuts.

Another Author: It nourishes the brain and causes flatulence in the lower abdomen.

COMMENTARY

The hazel-nut is the fruit of the betulacea Corylus, a well-known shrub of which C. Avellana L. is spread over Europe, Asia Minor, Syria and Algeria. Other kinds, Corylus colurna maxima and Pontica are indigenous to the Balkans and Western Asia. The nutritive value of nuts is known since Antiquity. Of their medical uses there are many records by Arabic and Persian authors. Besides stopping diarrhoea, they were said—like walnuts—to be an antidote to poisonous drugs (Arô Mansûr, p. 157).

⁽¹⁾ The Pernian-Arabic name bunday is derived from throw Pontikon (Pontian nut); as we saw before, the walnut was called "Persian" or "royal" nut.

Taken, whether before or after, with dried figs and rue they are an antidote to deadly (poisonous) remedies. The fresh walnut is less noxious to the stomach because it is more palacable and sweet; therefore it is mixed with garlic in order to diminish its scridity.

COMMENTARY

The walnut-tree (Juglans regio L.) is a native of Europe and Western Asia. Its fruit is known since Antiquity and is mentioned by Theopheastus and other Greek writers. Its medical use is due to the tannin contained in the leaves, shell and peel of the nuts. It is thus mentioned as an officinal drug in the French Pharmacopoea of 1866.

IB. cites Râzî, Ibn Sînâ and many other Oriental medica writers on the healing faculty of the walnut. Idra's who knew the fresh nuts from Sicily gives a long description of their properties. Dâwûd (I, 215) describes the Syrian Juglans-tree and mentions that it lives to the age of 100 years, and cites the use of the nuts against intestinal worms.

IBN AL-'AWWAM, in his Book on Agriculture (ed. CLEMBENT-MULLET I, 271-7), discusses in detail the cultivation of the walnut-tree in Medieval Moorish Spain.

SYNONYMS: Gr.: κάρυον (κάτγοπ), κάρυον Περσικόν (k. tasilikón, i.e. "royal nut," Theophr.), κ. βασιλικόν (k. tasilikón, i.e. "royal nut," Diosc., Galen); Let.: nux (tree and fruit, Virgil) (1), juglans (Piiny); Ar.: gavoz e.e. (2), gavoz al-akl جوز الآكا ("royal nut"), gavoz shámê ("cdible nut," (Gh.), gavoz malakî ورادي ("royal nut"), gavoz shámê ("Syrian nut," Egypt, Dâwûd), gavoz rûmê ("Azî, eccording to Bîrûnî), farîs والمد (same author), khasf خية (Dâwûd); (Abû Hanîpa), figrim بالمدانية (Issa 102, 8), khashf خشف (Dâwûd);

⁽¹⁾ See JOHN SARGRAUBY, The Trees, Shrube and Plante of Virgil, Oxford, 1920. p. 85.

⁽²⁾ Derived from Persian Isla 55.

⁽²⁾ Gauz rams of Inw Sina (I, 284) is the fruit of the black poplar.

but oblong. The Egyptians call it faláfil as-Súldán فلافل السودان "Sudan pepper")."

'ABD AR-RAZZÎQ (p. 91), as mentioned in the foregoing chapter, confuses the names of Paradise-grains with those of the kola-nut. What he describes under the name of gauz azzang and al-gauz as-sahrāviya عند الزنج والمدحراوية are in reality the grana Paradisi. He gives the Algerian name of gauzat arraqīqa عند الرقاعة; I.ECLERC stated that the drug sold in our days under this name is the fruit of Xylopia aethiopica R. Rich., i.e. Guinea-pepper.

Further investigation is required in order to establish the identity of the drugs to which the name grans Paradisi and their Arabic synonyms is applied.

SYNONYMS: Ar.: garez ash-shark جوز الشرك براشراك (Gll.), garez as-Súdân جوز السودان (Gll.), garez as-Súdân جوز السودان (Idrist), filfil as-Súdân نافض السودان (Egypt, Dâwôd), tha al-fil تت الفيل (Egypt, Dâwôd), garezat ar-raqîqa أكانس (Algeria, 'Abd Ar-Razzâq); Pers. and Turk.: no name; Eng.: grains of Paradise, black amomum, great cardamom; Fr.: amome, graine de paradis, maniguette, méléguette; Germ.: Paradisekörner, Guineakörner.

197. Gawz בּני, Walnut (Juglans regia L.). (Lecl. No. 525).

GALEN VII (XII, 13): The astringency is in its external shell when it is fresh and tender. Its juice is useful for diseases of the mouth and throat. The nut itself, on account of its refined oily qualities, helps to obtain the desired change of condition (1), especially the old (dried nuts).

Diosc. I (125): κάφυα βασίλικά (kárya basiliká). They are difficult of digestion, bad for the stomach causing yellow biles.

⁽¹⁾ In IB. instead of search عالية. searches "مريأوة ("hitterness, biliousness") which gives no proper sense; copyist's mistake.

sharper than it and of an aromatic smell. It is imported from the Sudan and is used in the confection of (fol. 26 r) electuaries(1). That which is imported from Berbery is inferior.

COMMENTARY

This nut was first described by Gh. and Ideast (see below). It is the fruit of different zingiberaceae, in the first place of Anomum (Aframomum) Gramum Paradisi L., which is indigenous to Guinea, and also of A. Clush, macrospermum, strobilaceum and A. Melegueta Rosc., which latter furnishes the Malaguetta-pepper. All these kinds of Anomum furnish the "grains of Paradise" (grana Paradisi) which are of different sizes and all contain resin, aromatic oil and a substance which burns the tongue. The larger kind described by Gh. is sold in our days in the Cairo bazaars(2) under the name of filfil as-Sadām child ("Sudan pepper") and tin al-fil القبل الدولان ("Sudan perper") and tin al-fil العبل الدولان ("Sudan perper") and tin al-fil العبل العبل

Identif (p. 82), quoted by IB., gives a good description thus: "I saw it in Morocco whither it is imported by merchants from the Sudan. It is the fruit of a tree that grows in Ethiopia in the first climate (3). It is a large nut, as big as a large fig, round, having an external bark which, when dried, shrinks. Under this bark are kernels which are soft, the hardness being in the bark (p. 83). In their interior are grains in the form of grape-pippins in great number, reddish or greyish.........." Identif then describes the preparation of an oil from the grains.

Dâwôn (I, 218) knew this nut equally well and gave a detailed description, of which we abstract only the following passage: "...... This bark falls off (from the fruit) and remains grey, spongy, soft and filled with seeds like pepper-corns

⁽¹⁾ Gaudrieldt برارش. Arabiolood from Persian gundriel كرارش, i.e. an electuary amisting digestion.

^(*) Ducaes emitted them.

^(*) Le. the hottest.

It was not till four centuries after Gh.'s time, but 50 years before AL-GHASSÂNÎ in the XVth cent., that the nut was made known to Europe under its native name of goro, by the Moorish traveller Leo Africanus. At the end of the same century Bdoardo Lopez was the first to describe (from the Congo) the habit of chewing this nut which he called kola. 'ABD AR-RAZZÂQ (p. 91) the Algerian, mentions the name of gavz azzang which he identifies with gavz ash-shark غراها (see below No. 196). Since he gives us no description we must follow Leclerc who takes it to be Unona (Xylopia) aethiopica Dum.

The kola-nut owes its stimulating and tonic qualities to its contents of 2 per cent caffeine, theobromine and 0.75 per cent kolatin, besides starch and a red dye-stuff (kola-red). These qualities disappear as soon as the nuts loose their freshness. This is the reason why the use of the nut is restrained to regions near its native land.

SYNONYMS: Ar.: gauz azzang جوذ (Gh.), kharrûb as-Sûdân جوز صحراوية (Al-Ghassânî), govoz sakrâviya جوز صحراوية (Abd ar-Razzâq 91), kûrû اردو (Al-Ghassânî); Eng.: kolanut, kola; cola seeds, gooroo nut, bissy nut; Fr.: kola, noix de kola, café du Soudan, noix de goro (gourou); Germ.: Kolanus, Gurunuss.

196. Gawe ash-Shark عوز الشرك (¹), Black Amomum (Amomum Granum Paradisi L.), etc.

(LECL. No. 535).

It is "the nut of the Abyssinians," in the size of the edible nut (walnut) except that it is a little more oblong with sharp ends, as if it were a specimen of the roots of small asphodel (usul al-khuntha: أصول ألثني ; its colour is red, slightly inclined to black; its flavour is like that of ginger (zangabil), even

COMMENTARY

This is the first description of the kola-nut in history. It. was copied by IB, and is here slightly abridged by HB. Gh. must have seen the nut itself. LECLERC, when translating IB's. charter 533, identified the "negro-nut" immediately with the kola-nut, a woody capsular fruit containing from five to fifteen crimson seeds, of the African sterculiacea Cola acuminata. Schott, & Endl. and Cola vera Schum. (synonym: Sterculia ac. Beaux.). This is a tree reser, bling in habit the Spanish chestnut. which grows wild in Togo, Dahomey, Nigeria and Cameroon down to Angola. Another kind with two seeds only, is Colanitida or vera, indigenous from Liberia to Sierra Leone (1). Both of them are now cultivated by the negroes, as the demand for their use is still increasing. The actual annual production is about 20,000 tons. Its commerce is mainly in the hands of wandering Hausa merchants, who carry it to the Sudanese people round Lake Tchad, whence a small quantity is sent to Timbuctoo and the Berbers of North Africa. In this way Gh. probably became acquainted with the drug.

RENAUD, in a detailed study (3), emits the opinion that Ghdid not describe the kola-nut, as its parts are larger than the grains of the lesser cardamom. He bestows the honour of the first good description of the nut on al-Ghassans of the Moroccan Sultan Ahmad al-Mansur. That practitioner wrote, in 1586 a.d., a pharmacological treatise (3) in which he described the kola-nut under the name of "carob of the Sudan" (kharrab as-Sadan "level"). He called it gard . In two MSS. he says that its Egyptian name was tanbal . Al-Ghassans is, indeed, the first to mention the tonic and stimulating qualities of kola.

⁽¹⁾ A. CHEVALLERS and E. PERROT, Les régéleux utiles de l'Afrique tropicale française; facs. VI, Paris, 1911.

^(*) H. -P. -J. RENAUD, La première mention de la nois de kola dans la matière médicale des Arabes. Hospéris VIII (Paris, 1828) pp. 43-67. Good bibliography),

^(*) RENAUD et G.-S. COLDE, Tubjat al-Albéb, Glossaire de la matière médicale manoaine. Paris, 1931. See our Introduction No. 58, p. 30,

Marmonides and Idrisi (p. 83) say that the wild nomegranate yields a flower, but no fruit (1). Ingist applies the name gullanar only to the calyx of the flower.

SCHLIMMER (p. 410) wrote in 1874 that the Persian practitioners preferred as best the wild pomegranate flowers (milndr-i-farisî کلنار فارسی) coming from the Province of Gilan in North Persia.

Synonyms: (2) Gr.: βαλαύστιον (balaustion); Lat.: balaustium Scrib, Largus (PLINY); Ar.: gulnar, gullanar , anam e. magz أن (Issa), raghath ثني; Pers. : same names and andr-انار رباب VULLERS), ndr i-rubbab فارمشك mushk انارمشك, nar-mishk ار دشتی (VULLERS II, 1273), gunbadh كبد (3) (ISSA), anâr-i-dashti (" wild pomegranate," HANDJERI I, 217) ; Turk. : julndrige جلتارية (AVNI 71), yaban nari ان نارى (HANDJERI, AVNI), yaban nari chicheri ان ناری جیجی (SAMY); Eng.: balaustine; Fr.: balauste; Germ.: wilde Granatapfelblûte.

195. Gawz az-zang جوز الزيج (ا), Kola-Nut, (Cola acuminata Schott and Endl., etc.).

(LECL. No. 533).

It is a fruit in the size of an apple, a little oblong, angular, compact (5), containing in its interior grains like the lesser cardamom (gâgulla saghîr قَافَهُ صِنْهِ, Elettoria Cardamomum White and Maton), globular, chestnut-coloured, of a sharp taste almost similar to that of galingal (khûlingan خولنجان, Alpinia Galanga Willd), and of an aromatic smell. It is imported from the deserts of the Berbers. One dâniq of it, drunk with hot water, is useful against flatulent colic.

⁽¹⁾ AL-ASMA' (K. as-Nabbi wa sh-shagar كَاب النات والشهر, ed., Haffner, Beirut, 1898, p. 44) confirms this.

⁽a) See the very detailed paragraph of Lorw (III, 80-113).

^(*) Means simply a flower-bad.

⁽⁴⁾ Le. "the nut of Negroos."

^(*) In our text منسنج ; in IB, (I, 177) منشنج (* shrunken *); we preter our reading.

194. Gullanâr جناار, Balaustine, Wild Pomegranate-Flower (Punica Granatum L.).

(LECL. No. 494).

It is the male pomegranate-tree (ar-rumman adh-dhakar النان الذر) which is called in Arabic al-mazz النان الذراء (1).

Drosc. I (111): βαλαύστιον (balaústion). It is of many kinds, white, rose-coloured and red. In its appearance it is like the flower of the (cultivated) pomegranate. Its juice is extracted in the same manner as that of ὑποκιοτίς (hypokistis, hypocist). It is astringent and useful in the same (diseases) treated by the latter.

GALLEN VI (XI, 827): The gullandr is the flower of the wild pomegranate; its flavour is strongly astringent, and it's faculty is desiccative and cooling.

COMMENTARY

We treat here the wild pomegranate only, as there comes later on a long chapter on the cultivated kind (see below, Rumman دران).

The indigenous home of the wild pomegranate (Punica: Granatum L.) was probably in Persia and Central Asia. But it came very early to India, Syria, Arabia and Egypt where it was a well-known plant in. Antiquity. Dymock (II, 45) is inclined to derive the origin of the wild pomegranate from Punica protopunica (discovered by Balkour in Socotra). This, however, is a pure supposition.

The name gullander المنافقة is of Persian origin, guli-ander المنافقة ("flower of the pomegranate"). The medical uses of the flower were due to its astringent qualities. The bark of the root is much more efficacious and is still used in our days as an official drug in Europe (Cortex Radicis Granati). In the Cairo bazaars the flower is still sold sometimes under the Persian name of narmishk المنافئة (2).

⁽¹⁾ This name means "aorid," "astringent,"

^(*) See Dumos, p. 36 foll.

There is no other Oriental writer who gives any notable contribution to the knowledge of nutmegs and mace except DAwfo (I, 217) who details, about 1560 a.b., the first Arabic description of the tree: "(Nutmeg) is the fruit of a tree of about the size of a pomegranate tree, but lank and with narrow leaves. The leaves and wood are as good as the mace, as mentioned (before). This nut has inside it, similar to a Syrian nut, (walnut), two peels...... The size of this (entire fruit) is like an egg, and when it is pecled it diminishes to that of a gall nut, streaks and ramifications show on it. It is (native) in the mountains of India and in the islands of Atych (1) and Malacca......."

Dâwûn had in all probability his information from Egyptian prisoners captived by the Portugese who had discovered in 1504, the original land of the nutmeg-tree, viz. the Banda Islands (which they lost, in 1605, through the Dutch conquest of the Sunda Archipelago).

⁽¹⁾ The text reads Asking which is certainly a copyist's error.

^{/&}quot;) It is the translation of the Persian and Arabic name "fragrant nut."

The native land of the nutmeg tree is probably the region of the Molucca and a few neighbouring islands. The nutmectree is now cultivated in many tropical lands, but the bulk of the ware comes from Celebes and the Malayan Peninsula. The Arabs became acquainted with nutmegs through the Persians, as its name gawz buvot is a corruption of the Persian gawz-i-buva "fragrant nut") ; gavoz at-tib has the same meaning, but is half Arabic. The name for the mace, basbasa, seems to be a nure Arabic word derived from the root bassa , " to break" or "to crumble." Other kinds of Myristica are frequently used as substitutes for, or adulteration of, the real nutmeg (1). Its medical uses were mainly for diseases of the digestive apparatus and for eve-troubles. Moreover, it was and still is, a constant ingredient in aphrodisiac remedies. It is a bazaar drug in all the Oriental countries. In Cairo, baskets full of dark red mace are one of the characteristic signs of a native druggist store.

Nutmeg, mace and their oils are still official drugs in many pharmacopoeas, under the names of Nuclei Myristicae Nuces moschatac, Arillus Myristicae, Oleum Myrist., Oleum Macidis, and they form constituents of many tinctures (a list is found in Luersen II, p. 579).

ABÔ MANSÔR (Achindow, p. 231) mentions the nutmeg under the name of talksfar, which is, according to VULLERS (II, 529), a word of Greek origin designating the bark of an Indian clive-tree. According to LAUFER Sino-Iranica p. 584), however, it is the Persian transformation of a Sanscrit name talksapattra of "the Indian plum" (Flacourtia cataphracta Willd).

Bânthaf gives in his short paragraph on nutmeg its Sanscrit name jâtî ن and the Syriac name gôzê de-besmê رَفْرَى دُنِّ and says, quoting al-Khushakî, that it is also imported from Sofâla السفال (in East Africa). He identifies it exroneously with βάλανος κυρεψική (bálanos myrepsiké) of the Greeks which, in reality, is the ben-nut (vidé suprâ chapter 118, Bân ὑ).

⁽¹⁾ The mace is adulterated by the aril of Myristics malabaries ("Bombay-mace") and Myristics futus or that of M. sryesies ("Macassar-mace").

LETTER GÎM 5

193. Gawz Buwâ جوز بوا Nutmeg (Myristica fragrans Houtt).
(LECL. No. 526).

It is the aromatic nut (gawz at-tîb رجوذ الطيب).

IBN Sinh (1): It is a nut of the size of a gall nut, is easily broken, with a thin shell and an aromatic smell.

Is-HÂQ B. IMRÂN: It is imported from India. The choicest is the heavy, so date and red.

ANOTHER AUTHOR: Its flavour is like that of cloves (garanful فَالله). It is hot and dry in the second degree, fortifies the sight and cures ozona (bakkr خ). It helps the digestion of food and strengthens the liver and splcen. As to the mace (bashasa المنابعة), it comes from the thin (external) peel of the nut which covers the (inner) thick shell (a). The best kind is the red and the worst is the black. They are compact, fine, dry, their shells reddish or yellowish, burning the tongue like cubeb pepper (kabhba مُعْلِيّة). It is hot and dry in the second degree, astringent and carminative.

COMMENTARY

The nutmeg, the seed of Myristica fragrams Houtt., and its aril (covering of the seed) called mace (3) were very well-known kinds of spices since Antiquity. Somewhiped discovered nutmegs in ancient Egyptian tembs; they must have been imported to Egypt by South Arabian merchants who were, since the earliest times, the holders of the Indian commerce in spices. It is very strange that nutmegs were unknown to the Greeks and seem to have been known and mentioned for the first time by Byzantine writers of the VIth cent. A.D. (according to TROHIRCH II, 593, 633, in the XIth cent. only!).

⁽A) Qánán ed. Bôláq I, p. 281.

⁽²⁾ I.o. the seed-coat,

^(*) In Europa, during the Middle Ages, the erroneous opinion that mace was the lower of the nutning tree, was prevalent. It is in reality "intermediate in nature between an arilus and arillos of "H.C. GERENTHE, Materia Midson, fourth ed. (London, 1924) p. 186.



Other authors do not give any explanation and the works on plant-names of Yemen(1) are silent. Thus the question remains unsettled.

192. Bint Wardân יְבֹי נוגווֹי, Cookroach (Periplaneta Orientalis L.).

(LECL. Nos. 361 and 1396).

It is as-sarasir المراصر of the Hawi (2).

DIOSC. II (36): Its inside if triturated with oil or boiled with oil and instilled in the ear soothes its pain.

ANOTHER AUTHOR: Cockroaches (banât wardân (יִּלֹיבּינַטוֹי) (*)
are strongly resolvent, diuretic and abortive. They are useful
against intermittent fever (an-nâfid (الأفنى), poisons of insects,
haemorrhoids and pains in the uterus and kidneys.

COMMENTARY

The cockroach is the ubiquitous Periplaneta orientalis L., (Elattidae) (4) which probably emigrated from the Orient into Europe. Drosc. witnessed that, already in Antiquity, it was an unpopular intruder in bake-houses and other warm places. Its use in medicine is very old and common to many peoples. It had, and still has, in popular belief a great reputation as a diuretic and aphrodisiac remedy. A century ago it was still an official drug in many lands, under the name of Blatta Orientalis.

^(*) E. G. SORWHUNGERS'S "Plant-names of Temen" and E. BLATZERS Flore of Adea-(Caloutta, 1914-6).

^(*) I.e. Kitab al-Helevi كَابِ اللَّارِي, the enormous work Continents Medicines of ax-Bat; see Introduction No. 26, p. 17.

^(*) It is the plural of biat worlds.

⁽⁴⁾ It is not a beetle but an orthopteron (group Cursoris).

191. Bawl al-Ibl برل الابل "Camels' Urine" (Undetermined Drug).

(LECL. Nos. 389 and 1419).

These are pastilles imported from the Yemen and sold in Mekka during the (pilgrimage) season. They are used for the treatment of fresh and bleeding wounds. They stick to the wounds and are not removed until the latter are healed. It is a well-known and reputed remedy in Yemen. The Yemenites believe that their camels feed during a certain season of the year on a grass which grows during that season. The urine of the camels is then collected, dried and the residue made into small discs. This procedure is done only in the Yemen.

COMMENTARY

IB. (I, 167) was the first to comment on this enigmatic drug. He says that the foregoing paragraph is taken from Abu'l-Qâsim Az-Zahrâwi (1) and others. He does not believe that the discs are really camels' urine, but a black substance found in certain caverns in the mountains round Mecca, and also called sinn al-wabr " o" urine of hyrax"). He was told that it was the dried and hardened excrements of bats. It must have been a viscous substance, good for clogging wounds instead of mastic, and in all probability of vegetable origin.

Dåwûn (I, 174 and 439) gives the same names, but another explanation: "It is the name of special pastilles, of which it is said that they are the produce of a plant growing only in the mountains of Higâz and made into the form of discs by means of camels' urine."

This is a more plausible explanation, as the viscosity of the substance is in favour of a plant and that the urine of camels is very frequently used in desert lands instead of water, on account of the scarcity of the latter.

⁽¹⁾ See Introduction No. 34, p. 20.

ANOTHER AUTHOR: The urine of camels is extremely useful against ozena (khasham منف) because it energetically opens the obstructions of the ethmoid (lamina cribrosa, misfâ منفاه). When used mixed with human urine as a friction on the spleen, it is useful for dropsy (istisqâ' استسقاه). Children's urine, if boiled in a copper vessel, is useful for leucomata and trachoma in the eyes. Dog's urine, when boiled, blackens the hair beautifully as a pigment. If a drunken person drinks camel's urine, he recovers his senses immediately.

IBN Sînâ: A man suffering from his spleen was ordered in a dream to drink his own urine three times a day; he did it and was restored to health. He tried it on others and found it marvellons.

COMMENTARY

The pretended medical qualities of urine were believed in from the earliest times. The belief was, as shown by the foregoing chapter, shared by Ancient Egyptian, Greek and Arab physicians and passed, through the medium of Medieval European Medicine, on to the popular Medicine of all nations. It still lingers on in our days. It must be said, however, in honour of the Arab medical men, that such disgusting remedies did not play a great part in their pharmacopæia.

In almost every medical papyrus that has come to us from the Ancient Egyptian, Greek and Coptic periods, the use of urine as a remedy was mentioned in several places and for the treatment of several diseases. Nowadays urine is drunk, among the low classes of the Egyptian population, against measles and all kinds of cough.

Synonyms: Gr.: οὖρον (áron); οὖρημα (ároma); Lat.: urina; Anc. Egypt.: (בייי בְּשׁׁרָשׁ); -my-j-; Copt.: באר; Ar.: bowl אין: Pers.: pesh-db באר ; furk.: حمد , shásh , shásha , chamke ישגלי ; Turk.: st. שרש (water), sidik ישגלי ; furk.: st. שרש (water), sidik (שרש (idrár)); Eng.: urine; Fr.: urine; Germ.: Harn, Urin.

⁽¹⁾ This word is of Arabic origin; the Arabic term baset of for wine is equally in scientific use in Portion and Turkish.

COMMENTARY

The superstitious beliefs concerning the healing power of saliva are still common in the popular medicine of the Orient as well as that of the Occident.

Synonyms: Gr.: פובאסי (stalon), אינעלטיס (ptyelon); Lat.: saliva; Egypt.: אינעלטיס אינער אייער אינער אינער אינער אינער אינער אינער אינער אינער אינער אינער

190. Bawl بول Urine.

(LECL. No. 391).

and hot and very cleansing. The urine of man is weaker than that of other animals, except that of the castrated pig, which is similarly weak. Washing with urine cleanses freckles (namash: مُشْنَ) and cures lichen (hazâz أَسُنَ) and psoriasis (saʿfa مُشَنَّد). Some people drank the urine of children and adults and were cured of epidemic diseases (amrād wabā'iyyā مُنْ وَالْبُهُ اللهُ ال

Drosc. II, (81): When a person drinks his own urine, it cures him of the bite of vipers, of deadly poisons and of incipient dropsy (haban c_{-}^{*}). Stale urine is more strongly detersive than fresh for moist ulcers of the head, lichen, scabies and small-pox. The urine of oxen used as instillation soothes earache, and the urine of pigs crushes stones in the bladder. The urine of the animal called $2c_{7}\xi$ (lynx) — and which is called $2c_{7}\xi$ (lynx) is said to crystallize as soon as it is passed; (fol. 25 v.) but this is false. If, however, it is drunk with water, it is useful to the stomach and ulcerated bowels. Urine of asses cures pains in the kidneys.

ANOTHER AUTHOR: The best kind next to the hen's egg is the egg of francolins (1), the partridge (2) and the small partridge (3). On the contrary, the eggs of the duck are bad in their composition. The worst of all eggs, however, are those of geese and ostriches. All eggs are aphrodisiae, particularly those of small birds. Eggs are very nourishing, especially those of the pigeons which quickly fortify. Eggs of the bustard (hubárá (1)) make a good dye for the hair, and eggs of the land-tortoise (sulhafah barriyya (1)) are very useful for the cough of small children and for epileptic fits; but the eggs of the chameleon (hubárá (1)) are a deadly poison.

COMMENTARY

Apart from the superstitious ideas contained in the foregoing article, it gives us some hints that the yolk and whiteof eggs were in former times important means for composing: remedies and chemical substances. Dry collyria were, e.g. moistened with the white of eggs, and the same material is still in use in the Orient for popular remedies against ophthalmia.

SYNONYMS: Gr.: نفض به نهر (ôón); Lat.: evum; Ar.: baid جَمْ صَلَّى الْكُلُّهِ اللهُ اللهُ

189. Busaq (Bisaq) يصاق, Saliva.

(LECL. No. 300).

GALEN X (XII, 288): The saliva of the person replenished with feed is weaker than that of the hungry. Saliva is, in general, is compatible to animals that kill mankind with their stings, or bite. It kills the scorpion.

⁽¹⁾ Here two names are given, sadrug L. and durrug which are, according to Dandrif (Jagukur I, 363, foll.) those of two varieties of francolin.

ولا Arabic gaby منبع, from Persian habb كلك.

⁽a) At taikita ألطيوج; see Daniel (Jayacar II, p. 267).

terebinth-resin or pitch. The flour is more active than the stone and preferrable for healing inveterate ulcers, and for gout (nigris שניש). If powdered, instead of natron (natran (identification)) on fat bodies during the bath, it emaciates them.

IBN RIDWÂN: It strengthens the vision and clears white specks (corneal leucomata).

COMMENTARY

It is not possible to determine exactly what kind of substance the lithos Assios (Assian stone) of Diosc. and GALEN is. Its name is derived from the town of Assos in the Troad. It may have been alumite, a mineral composed of alum together with normal hydrate of aluminium, a soft mineral which is easily disintegrated by atmospheric action.

The name bârdd is Persian and designates all kinds of powder, including saltpetre. This name was in use for the Assian stone, according to IB., in Spain and the Maghrib. As to the name in use in Medieval Egypt, its two different readings in the text are explained in the footnote 3, p. 382.

188. Baid بيض, Eggs.

(LECL. No. 392).

GALEN (1): That which we know and which is easily procurable is the hen's egg. We are in no need of another kind if we have it (2). Its quality is a little cooler than the well-tempered body, and desiccative without pungency.

Droso, II (50): The hard-boiled egg is more nourishing than the half-boiled (8), and this latter more than the raw.

⁽¹) This passage is extracted from Galeri's De Simplicium Medicamentorum Temp., etc. Book XI, chap. 31 (cd. Kursux XII, p. 351). IB, simply copied it from Gh., a new proof for his absolute dependence on the latter's book.

^(*) Abridged by BH.; Galen continues: "as they are of the same nature."

[&]quot; An-nimbiriaht مُورِشت from Possian aimburusht أليموشت, i.e. " half-boiled " or " poached " ogg.

187. Barad الرود 2), Assian Stone, (Alurite ?).

(LEGL. No. 72).

A black stone which is called by the Egyptians "Chinese salt" (*),

Dioso. V (124): Λίθος ᾿Αστιος (lithos Assios). The choicest is that which resembles the colour of pumice (quisdr), which is soft, light, easily crushed, and which has deep-yellow veins. As to the fine flour of this stone, it is a fine salt which collects on it, and which is partly white and partly pumice-coloured, inclined to yellow; it is slightly pungent to the tongue.

GALEN IX (XII, 202): This stone is called Assios; it is not hard though it resembles, in colour and consistency, the stones which are formed in bath urns. There is something developed on it like the dust-deposit on the walls of mills. This remedy is called "fine-flour of the Assian stone." It is the rock which generates this fine-flour, and its salinity probably indicates that it is formed from the dew rising from the sea and falling on it, and later dried by the rays of the sun.

DIOSC.: The faculty of this stone and of its fine-flour is putrefactive and resolvent to abscesses (*) when mixed with

^{(1) &}quot;Solomon's stone,"

^(*) In both MSS., T. and G., a serious copyist's error: bdrzad الزيد (which meansgalban-resin) instead of bdrdd الزيد (*).

^{(&}quot;) Mills as-Sta بلح المين; IB. reads thatg as-Sta ألم المين, i.e. " Chinese mow."

⁽abscesses) مَا حَات (T. and G. girthat: احاد (wounds) instead of blardgets المادية (abscesses)

and the medicine of the Arabs from Persia, as its name is Persian. A copyist's blunder made it in our MSS. birdh word has no meaning, and this, perhaps, is the reason why IB. did not copy this chapter from Gh., but missed it altogether.

As to the name bizaill (1) it designates in Persian a sea-green stone, the beryl (STEINGASS) or some other green kind of jacinth (what!). Dozy I, 81).

The name bigads خادى alone designates the garnet. It is the Arabicised Persian bijads يتجادى or bijad بيجادى, which means a blood-red stone; it has another Arabicised form baijadaq بيجادى (STEINGASS).

The garnet is mentioned in all the Arabic and Persian lapidaries. A remarkably well-informed article is in IBN AL-AKFA-M's above-mentioned book (2). He gives another name for garnet, banafel and (Persian, meaning "violet"), which may refer to a violet variety, or, according to Chement-Mullet, a kind of jacinth or zircon. He says that the best kind of garnet is found in Ceylon, while other kinds are found in Badakhshân (Central Asia), in Spain and in the "Lund of the Franks." This refers probably to Bohemia where the commonest quarries in Europe exist. Akfânî confirms the fact that rubbed garnet attracts light feathers. Indeed there are many precious stones which possess electric properties. It is possible that this property misled several Arab authors to confuse bigádî—garnet—with amber

The superstitions and medical uses of garnet lasted until the end of the XVIIIth century. We find, e.g. in a German pharmacopoea of 1748 (3) the lapis granatus or rubinus de rocca recommended for dysentery, haemoptysis, gonorrhoea, and as an "absorbant remedy" fortifying the heart and nerves.

SYNONYMS: Ar.: bizâdî بزادی (Ch., Idrîsî), bigâdî برادی, yâgâtâ al-bigâdî العجادی (Dozy I, 81), banafsh بنفش (Akfânî)-

⁽¹⁾ This same name for garnet is given by Loufai (I, 75).

^(*) Nes p. 357, note 4.

^(*) GRORG HEINERGE BEIR, Materia Medica. Strassburg, 1748, p. 263.

treatises on commerce (AL-AKFAN1). AD-DAMER in his Zoological Treatise has a long article (1) on the bezoar-goat which he calls issued the

The later European authors distinguished between Oriental and Occidental bezoar, the latter being imported from Peru. They all complained about frequent adulteration, as the real Oriental drug was rare (*).

Synonyms: Ar.: bâdeahr יְלְבֹלְּתְּ , fâdeahr , أَحْرَمِر , baneahr יִלְבּעְ , (popular name, Modern Egypt), hagar at-tais בּבּע (popular name, Modern Egypt), hagar at-tais בּבּע ("goat stone "Schimmer), masûs ייבּע (Handyrei I, 249); Pers.: same names, and pâdeahr , pâceâhr أَرْبُر بُولُولُ (Vullers), pâneahr أَرْدِر بُولُولُ (Stringass), pâdeahr أَرْدُر بُولُولُ (Kitingass), pâdeahr أَرْدُر بُولُولُ (Abû Mansûr); Turk.: padeehr بأَرْدُر pâneahr أَرْدُر بُولُولُ (Avni 76); Eng.: bezoar-stone; Fr.: bézoard; Germ.: Bezoarstein.

186. Bizâdî زادی, (a), Garnet.

(LECL. missing).

It is also al-bigade ...

BOOK OF STONES (*): The ore exists in the East; when it is first found it is dark and does not ahine. If it is cut by the jeweller its beauty is exposed and it shines brilliantly. If worn mounted on a ring (fol. 25 s) in the weight of twenty-five grains, it eliminates evil dreams. Fixation of sun's rays with the eyes diminishes the sight, so does long fixation of this stone. The choicest kind is that which is very red and very brilliant. If rubbed against the hair of the head, it attracts from the ground small particles of dust and straw (magnetic).

COMMENTARY

The garnet is a precious stone which seems to have been unknown to the Greeks. It was introduced into the commerce

⁽¹⁾ Tesnel, of JAYAGAR I, pp. 222-6.

^(*) See, e.g. Pommr, A Complete History of Druge (written in French and done into English), London, 1712, pp. 235-8.

⁽a) In T. and G. birddi رادي.

⁽⁴⁾ In Ruska's edition, pp. 102 and 143.

(removing) poison," from which word the Arabic and European names are derived. This remedy of superstition was unknown to the Greeks; it is, like its name, of Persian origin. The real Oriental bezoar-stone is not a mineral, but a gall-stone obtained from the Persian Bezoar-goat (Capra aegaprus Gm.), according to WORBLER'S researches (1).

The miraculous effects of bezoar were described or mentioned in hundreds of Arabic and Persian pharmacological, toxicological and mineralogical treatises. The most detailed account on bezoar is found in the Book on Precious Stones of the Persian physician AT-Tîpâsat (d. 1253 A.D.) (*). He knew that the bezoar-stone was of an animal origin, but believed that the goat in which it was formed must have lived chiefly on poisonous makes. In this manner he explained the antidote action of the drug. The idea was that poisoning causes coagulation of the blood; that the bezoar stops this process and eliminates poison and bad chymes from the body by vigorous perspiration.

The Egyptian physician IBN AI-AKFANI (d. 1348 A.D.) composed a book on precious stones (3) in which he gave details on the bezoar-stone more than any other scholar: "Bezoar originates in the gall-bladders of some mountain-goats in the land of Shankara in the mountains of Shiraz (South Persia).... It is usually acorn-shaped; its colour is green or grey. In old animals it is made up of superimposed layers, and its weight, though its material is light, reaches 10 mithquils."

Bîrûnî in his *Drug-book* speaks of five different colours of the bezoar-stone.

The bezonr-stone is also mentioned in many Arabic cosmographies (AL-QAZWÎNÎ. AD-DIMISHQÎ), geographical works and

⁽¹⁾ H. Punner, Basoarsteine, in James 1901.

رَاب ازهار الانكار في جواهر الاحجار لشهاب الدين ابر السباس احد بن يوسف النيفاشي (A beartiful MS. of it exists in the Taimūriyya Library (which now forms a part of the Egyption Library) in Coiro. A Ranners Ruscul's edition 1818 (reprint 1906) is indequate; an edition sutting modern requirements is badly needed.

⁽أن الأكماني) (أن الاكماني) (من الاكماني) بن المام بن ساعد الانصاري (أن الاكماني) (بن الاكماني) (pablished by Rather Louis Shexissio in al-Mashrig الشرق (Beyrouth, 1908), p. 751. [6]. A German translation is found in Winderstam XXX (1912), p. 21) foll.

animal and vegetable poisons and the bite and sting of (poisonous) insects. If taken, powdered and sieved, in a dose of 12 grains it saves from death; even if put into the mouth of a poisoned person and chewed it is successful.

IBN GULGUL: It is a yellowish stone marked with white lines.

IBN AS-SAQAL? (*) informed me that he saw it in the mountains of Cordova. In the East it is renowned amongst the most illustrious kings.

An-Rar(2): It is a yellow, soft and tasteless stone, from which I have seen marvellous action against the poisonous effect of Indian bîsh, (aconite) (3). The stone which I saw was yellowish white, like the colour of white wine with scales like alum.

UTARIO IBN MUHAMMAD (4): The bezoar-stone, if placed opposite the sun, transudes a certain fluid. If this transudation is sucked it is useful against high fever and ophthalmia

ANOTHER AUTHOR (5) It has various colours: grey, yellow or impregnated with a little greenness or whiteness and dotted. The best kind is the pure yellow, and next to it is the grey-

COMMENTARY

The literature, both Oriental and European, on the bezoarstone is so large that it is not possible to mention it in details within the limits of our commentary (*).

The name is Persian : ﴿ وَهُو مُو الْمُورَامِرُ " protecting (from) poison," or, according to some scholars, pâw-zahr پارزهر " cleansing"

⁽¹⁾ An unknown scholar "the son of the Similar", probably migrated to Spain from. Simily.

^(*) In his book entitled "The Royal Medicine " (At-Tibb al-Mulaki كَاْتِ الطَّبِ اللَّهِ كَلَّ الطَّبِ اللَّهِ عَلَيْهِ عَلَيْهِ اللَّهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَيْهِ عَلَّهُ عَلَيْهِ عَلِي عَلَيْهِ عَلَّهِ عَلَيْهِ عَلَيْه

^(*) Ses chapter 181.

⁽⁴⁾ He was a scholar (astronomer) of the IXth cent. a.p. and author of the oldest existing book on precious stones; (see BROCKELMANW I, 243). A MS. is in Paris, (2776, 3) another in Ixtanbil (Ayk Sofia, 3010.)

^(*) This passage is again extracted from the Pseudo-Aristotelic "Book on Stones." See RUBKA'S aforementioned edition, pp. 106 and 148.

^(*) We refer to J. Ruska's learned article Bends in The Encyclopedia of Islâm, vol. I. p. 710.

disintegrated by the action of sun and air. The stone was consecrated to Isis and Artemis Selene, the moon-goddess and the coddess of chaste love. In the Middle Ages it was used to adorn the statues of St. Mary (whence the German and French names; vide infra). The aphrosélinos ("moon froth") is the same mineral in efflorescence; it has then really some likeness to foamc

It is mentioned once or twice in the Egyptian Demotic Magical Papyrus under its Greek names.

185. Bâdzahr الدزهر Bezoar-Stone.

(LECL. No. 230).

Its meaning in Persian is "antidote against poison."

Book of Stones (1): It is useful against "hot" and "cold" poisons, drunk or suspended (round the neck). Its native places are in China, India and the East. There are many stones resembling it without having the same specific property, such as the qubits (2) and the marble (alabaster) (marmar (1), the latter of which cannot rival it, but is often substituted for it. It is a valuable stone, soft to the touch, but not exceedingly so, fine in action and extremely useful against

⁽⁴⁾ This chapter is abstracted, but not literally, from "The Book of Stones" (Lapidary) they seerboid to Aristello. It is of Molieval origin, as proved by J. Ruska (Des Steinback des Aristelses, Hollalberg, 1013).

i.e. (م) Lo. "the stone of the tombs;" perhaps an old mistake for *qubrust*. i.e. Cyprise-stone ?

Diobo., Galen), פֿסְפְּלְּמִייִם (aphrólitron Galen); Lat.: nitrum, spuma nitri (Pliny); Ar.: bawraq פֿיני, natrûn שׁנָיי, zabad al-bawraq בּילּט, bawraq zabadî בְּילֹט, tinkûr בִּילֹט, bawraq zabadî בְּילִיט, tinkûr בִילֹט, ("Whites bawra," "Vullers ibid.); Turk.: natrûn שׁנְפִיל , sôdê בּילִיל, sôdê בּילִיל, sôdê בּילִיל, sôdê בּילִיל (Handirên II, 567); Eng.: unclean natron, sodium carbonate; Fr.: natron, carbonate de soude; Germ.: Natron, Sodiumkarbonat.

184. Bisâq al-Qamar بصاق القمر "Moon-Stone" (1), Calcium Sulphate.

(LECL, Nos. 301 and 602).

It is also called "froth of the moon" (raghwat al-qamar) ازيد القمر) and "cream of the moon" (zabad al-qamar).

Dioso, V (141): Λιθος σεληνίτης (bithos selénités) or moonstone (hagar al-quanar). It is also called ἀρροπέληνον (aphrosélénon) or "froth of the moon" (raghwat al-quanar). It is so called because it is found by night under a waxing moon. The choicest is the white, laminated and light one which is common in Arabia. It is rubbed, and the dust that falls off is given as a drink to sufferers from epileptic fits. Women wear it instead of an amulet. If suspended on a tree it causes it to yield fruits.

GALEN IX (XII, 208): People believe in its utility against epileptic fits; but we have not examined this and have not information to give about it.

COMMENTARY

The "moon-stone" or selenite of the Ancients is very probably the foliated, transparent, unclean calcium sulphate (crystalline gypsum, isingless-stone), which is extremely frequent in Arabia and the Egyptian and North African deserts (3) and is

⁽¹⁾ Literally "spittle of the moon;" the word birdy is vocalised in T. bustq...

⁽²⁾ See below chapter 225 (gibsis).

respond to our "nitre," but is a mixture of soda (Na²O), sodium carbonates, sodium hydroxide, sodium chloride and other sodium salts which are naturally found in many desert regions of Asia Minor and Egypt. In the Lybian desert, to the west of Cairo, are the salt-lakes of "the Natron Valley" (Wôdi 'n-Natron & lize) which yield salt and soda and are still exploited by an industrial company. The aphrônitron was probably an unclean mixture of sodium carbonate and hicarbonate, with salt or a nitrate of calcium, Ca(NO₃). The terms borax and natron are derived from the Arabic names; bawraq is the Arabicised form of Persian bawra *9.9, natrûn *1.5.

The bauraq al-gharab עניט לליניף (RAZI) or bauraq-i-bûda (RAZI), e.e. "nitre of the willow" (ABO Mansûr, p. 237) was perhaps salicin, a bitter salt which is contained in the bark of the tree.

In Medicine it figures in almost every Egyptian medical papyrus —whether ancient or Coptic.

Besides the use of bavara for washing, soda and glassmaking it was very much in use for medical purposes, especially in ophthalmology (for taking away corneal opacities).

SYNONYMS: Ancient Egypt.: \$ 5 1 2; Copt.: 20cie, 21Lor; Gr.: virpov (2) (nitron. Dioso.), apponipov (aphronitron,

^(*) For more ample information see the learned publications of A. Lucas, The occurrence of Natron in Ausiest Egypt and the Use of Natron in Mummification. Journ. of Egyptian Archaeology, XVIII (1932) pp. 63-66 and 125-136.

^(*) The word nitre comes from Egyptian on ar.

nitre (aphrónitron) is that the latter is dry and looks like white wheat-flour and is not like the powdered stone, which is brought from Assos (1), and which is ash-coloured. The frothy nitre is not sifted like flour (fol. 24 v.), but is solid and compact. It is this kind which people use every day to wash their bodies with in the bath. Its property is not only to cleanse dirt, but also to dissolve purulent humours causing itch. If it did not cause nausea and provoke vomiting, it would be most successful in liquifying viscous (bad) humours (chymes), and would cure one from the absorption of poisonous mushrooms (futre basis of the conditions) (1).

ANOTHER AUTHOR (3): The nitre is of two kinds, natural and prepared. The natural is the mineral one. The latter is also of two kinds, Armenian and Egyptian. The Armenian is the better; but we never see it here (4). The Egyptian is of two kinds: one is called natron and is a stony salt of reddish colour and saline flavour with some bitterness which proves its burning quality; the other is called "bread nitre" (baurag al-khubs المنافق على المنافق المن

COMMENTARY

Bawrag-natron of the Greeks and Arabs - does not

^(*) In the text of T. and G. Ajeus, copyist's error. Assoc was a town in the Troad (North-West of Axia Minor). See below chapter 187.

^(*) The last phrase is missing from Gazzar's work; perhaps an interpolation by an Arab scholar.

^(*) This is, according to IB., again the above-mentioned IRW WATER.

⁽⁴⁾ In Spain.

⁽⁸⁾ In Spain.

⁽⁹⁾ Arabic al-galy [3]; this is the sah of the burnt plant unkeden Util (SALSOLA KAIX L.), containing potassium carbonate; vide supré chapter 76 (p. 173 foll).

⁽⁷⁾ This word is missing from both texts, T. and G. and has been supplied by us.

IBN IS-HÂQ (1): There are many kinds of bawraq; one of them is the Armenian which is imported from Armenia, and the so-called natron which is brought from the Oases (2). The latter is of two species, a red and a white one, and it resembles rocksalt (milh ma'dan's معدن); its flavour is intermediate between acidity and salinity.

IBN WAFID (3): The bauraq has many kinds and its native places are numerous. There is a kind which is liquid and afterwards petrifies, and another kind which is calcareous from the beginning. Some of it is red, some white, grey or multi-coloured. Natron, though belonging to the class of bauraq, has different active properties from bauraq.

An-Râzî: Its kinds are many; among them "the goldsmith's natron" (bawraq as-sāgha أثربتي) which is the white and earthy, and "the frothy" (as-zabadî الزبني) which is the best of them and whose colour is earthy-grey. Another kind is "the natron of willow" (bawraq al-gharab بردت النب) which is found in the willow tree.

DIOSO. V (113): Nitton). The choicest is the light and rose-coloured or that white and porous like a sponge. That which is called appoint (aphrónitron) (4)—meaning "cream of nattron"—is, so it is said, the Armenian. Its choicest kind is the laminated which is easily crushed, purple-coloured, resembling froth and of pungent taste, like that which is brought from the town of Philadelphia (5). The second in quality is the Egyptian; it also exists in the district of Magnesia in the land of Caria (6).

GALEN IX (XII, 212): The difference between the white African nitre which is known as "the frothy" and the froth of

⁽¹⁾ IB, reads Is-man B. 'IMBAN which is probably more correct.

⁽a) The Wostern Onson of Egypt, especially that called Wadin-Natran وادى النظرون.

^(*) See Introduction No. 40 (p. 23).

⁽⁴⁾ Οτ άφροδ νέτρον or better άφρας νέτρου.

⁽⁶⁾ In Lydia (Asia Minor).

⁽⁹⁾ Asia Minor.

There is another kind (1) which is black and tree-like, possessing more branches than the first and with a smell stronger-than it. Its faculty is the same, caustic, dries the tears and rejoices the heart. It is useful against deafness when dropped into the ears mixed with balsam-oil (2).

COMMENTARY

The first kind is the red coral (Corallium rubrum Lam. or Isis nobilis Pall.), the second one of the numerous black corals (Antipathes subpinnata, A. Larix, etc.) both indigenous to the Mediterranean. The name bussad is not Arabic, but Persian. Red corals are still sold in the Cairo bazaars (Duoros, p. 124) under the name of morgân is or (falsely) dam al-akhawain is seen al opacities in the eyes. Pliny thought the coral to be a plant, Dioscurines and others a stone (8).

Synonyme: Gr.: χοράλλιον (korálkon, Galen), χουράλιον (kourálkon), λιθόδενδρον (kithódendron, Diosc.); Let.: curalium (Pliny XXXII); Ar.: bussad איין, murgana איין, hagar shagari איין, hagar shagari איין, bîstâm רְבִּילִי, (Vullers, Hangjéri I, 534), marján ביין (Schilmmer), basar ריין (dead coral, Nafiox I, 404); Turk.: marján יין Eng.: red and black coral; Fr.: coral rouge, noir; Germ.: sohwarze, rote Koralle.

183. Bawraq Ö.F., Soda, Natron (Sodium Carbonate). (LECL. No. 381).

^(*) This is Drosousanes' following article (V, 123) on the black coral averages; (anti-pathés).

^(*) The last phrase is not found in Droso.'s text; probably an interpolation by an Arab physician.

⁽⁵⁾ In 1677 it was still one of the questions in the doctorat-examinations for apotions. Whother the coral was a plant "(I)ORYEAUX. Unc thèse de pharmacie, Paris, 1991), and it was not on-lice than 1711 that the animal nature of the coral was definitely proved (by Courar Markoux)!

البيش برهمي and of " aconite of horns " (bish al-qurûn). ييش برهمي).

SYNONYMS: Ar., Pers. and Turk.: bish, khániq an-nimr לפני Moreover Pers.: tawâra לפני (Vullkes, Issa), halâhal خانق النر ("choking the leopard"), qaplan otu فيلان بوغان ("leopard's plant" Handjéri), qurd boghan فرد بوغان ("choking the wolf," Samy); Eng.: bish poison, Indian aconite; Fr.: aconite féroce; Germ.: grimmiger Eisenhut, indischer Strumhut.

182. Bussan السد , Coral.

(LECL. No. 282).

It is al-murgan الرجان (the coral).

DIOSC. V (121): μοράλλιον (korállion) (1); it is also called Albiderocov (lithodendron) or "the stony tree." It is said that it is a marine plant which grows in the depth of the sea, and that when it comes out of the sea and is in touch with the air, it is hardened and becomes rigid. It is plentiful in the mountain called Iláyuvov (Pákhynon) (2) which is near to the town of Syracuse. The best kind is the red one which resembles the substance called Yupixóv (Surikón); it is said that it resembles the colour of red lead (isring find, minium) or the saturated colour of the substance called σάνδυξ (sándyx) (3), i.e. cinnabar (cuspoufr زنجفر). It is the kind which is easily crushed in all its parts, homogeneous and having a smell like that of sea-weed (truhlab bahri عرى) and has many branches like the cassia-tree (salikha الملتخة. Cinnamomum Cassia Bl.). However. that which is stony and soft is bad. Its faculty is astringent, moderately refrigerating and detersive. It is very useful for haemoptysis.

⁽¹⁾ Or κουράλιον (kurálian).

^(*) The most southern promoutory of Sicily.

^(*) Probably red ochre.

knotty is the most malignant and deadliest kind of aconite, the quickest and most sudden in action; a little of it has a great effect and causes a profound result. It is the most fatal and destructive of all the poisons...... Its action appears in from half to one hour; for after this period, the person (who took aconite) is to be considered as virtually dead. Indeed, as soon as convulsions appear in the person who drinks it, there is no hope for him except when Allah wills otherwise."

At the end of the "Discourse on the Animal Poisons Acting on the Body" Pseudo-Gâbir speaks again of the aconite:

"A person who takes a small quantity of it feels at first sudden vertigo with dimness of sight. This is followed by continuous and repeated convulsions ending in unconsciousness (ghushe غثر), collapse (dhubûl غثر) and then death. If the dose is hig, the signs begin with convulsions, swelling of the tongue, and protrusion of the eyes as if they were dislocated from the orbit. This is followed by unconsciousness, and recurrent convulsions until death."

In the chapter "On Vegetable Poisons" the author speaks about the treatment of aconite-poisoning. This chapter, however, is too long for its translation to be included within the limits of this commentary. Anyhow, Pseudo-Gâbir's description of the symptoms is the best we could find in all the Arabic literature.

There is another manual of toxicology, the earliest of all, which is a "Book on Poisons" by the Indian statesman Chanakya (1). It was translated into Persian under the reign of the Caliph Hârûn Ab-Rashîd and into Arabic by order of his son the Caliph Al-Ma'mûn (d. 833 A.D.). A hand-copy of this translation exists in the Egyptian Library in Cairo (8). We examined it, but unfortunately were disappointed to find nothing in it about aconite except the mention of "Brahmanic aconite"

⁽¹⁾ He is supposed to have lived ab. IVth cent. n.c. and is said to have been minister to King Chandragupta.

Cleber by the Medieval Latin translators. ('areful textual criticism, however, proved that Gâbir's (mostly unpublished) works were spurious. They were the work of some alchemist of the Xth cent. A.D. who wrote in secret for the benefit of the strictly banned Ishmaelitic (Shi'ite) propaganda ('). Gâbir's main work On Poisons is a bulky treatise, of which a MS. exists in the Taimūriyya library in Cairo (2). There is no special chapter in it on bish (Indian aconite), but it mentions it in several places and we give here some extracts,

In the second chapter (fasl فصل) of his book, Pseudo-Gâbir speaks about the sub-divisions of remedies and poisons. Concerning Indian aconite (bish) he says:

"We say, e.g. that the grey aconite is more powerful in its action and has a more complete penetration in the tissues than the yellow and black. The grey is a kind or a species of aconite; that is to say that we make "aconite" a generic name and say of it: 'the grey of Khurâsân, the yellow Indian and the black of Kalah (3) belong to it.' These are really different species of aconite bearing its name."

Later on he continues:

"Scientists pretend that aconite is a kind of costus and that it is one of its species. This is not the place to discuss the habitats of this drug and its real nature; we referred to all these questions in the book specially devoted to plants (4), their kinds, their other particularities, their utility and nocivity, their dosage and the degrees of their qualities, etc........."

"I say that the dark and galingal-like kind or species of aconite, which is rough to the touch, variegated in colour and

⁽¹⁾ See J. Ruska and Paul Kraus, Der Zusammenbruck der G\(d\)birlegende, Berlin, 930.

^(*) This precious library is now housed in the great Egyptian Library, as a gift of the sons of the late lamented Thinder Pasha to the Nation. Through the kindness of the distinct we were subtrivised to copy some paragres concerning account from this MS which thears the title بالمواج والمعالم المواج والمعالم المعالم المعالم

^(*) This is the old name of a district in Malacca (Further India).

⁽⁹⁾ There is no such hack preserved among the many MSS, of Pseudo-Gâbir's scientific extant collection.

together in order to treat him, but without any avail. However, there came an Indian who pretended to have the power and knowledge of curing him. The patient asked him what kind of reward he expected for the cure. The other replied: I have not come with a motive of profit like those ignorant people who are deceiving you, but I have come to give you advice. If my treatment is successful, the question of reward by a gift is open between you and me. The patient asked him : " Which treatment do you intend to apply, cutting or cauterising ? He replied : I shall not lift up a shirt off you nor untie a lace or a trouser: I shall only ask you to uncover the sacral region, the back and hips. Then he made scarifications on his back and above the region of the kidneys and caused his blood to flow by friction with aconite (bish), whispering formulas of exercism -- for they (the Indians) cannot do without them! He then fed him on s small quantity of Indian aconite (bish) and covered him up again. and gave him rest. When the wounds were nearly cicatrised, he removed the scab, did the same thing he did at first, and repeated the procedure several times. The haemorrhoids were cured: they disappeared completely and did not relapse until the end of the patient's life, which was very long. The patient honoured him (the Indian) and granted him a gift, and then dismissed him."

This story, not very convincing from a medical point of view, proves beyond doubt the widespread use of the poisonous and non-poisonous kinds of aconite in the East.

Another category of Arabic literature which contains abundant information on aconite are the numerous "books of poisons" composed by Oriental medical practitioners (1). One of the most comprehensive is that ascribed to Gâbir in Hayyân'û, , , supposed to have lived in the VIIIth cent. A.D., famous, in the History of Science as the Father of Arabic Alchemy, and called

⁽¹⁾ M. Syrensoumenders (Die toxicologisches Schriften der Araber bis Ende des XII., Jakrissaderts, in Virchowa Archiv, vol. Lil., Berlin, 1871, pp. 341-603) made a record of 38 such books; but it is far from being complete.

Some Indians mentioned that both halfhal and halfald are two names for one thing, viz. a kind of black aconite inclined to verdigris colour. The white brahman is its best kind and resembles sweet-flag (al-wagg)) it is used in medical treatment. Then follows the colour which is not white, and the malignancy (of the drug) increases, until shidar the black and broken, which is the strongest. The fatter, less sectioned and rugged the drug is, the stronger its action. The worst time to drink it (the drug) is from sunrise to mid-day. As to al-halhal it resembles Arabian costus (al-qust which resemblance makes people forbear to taste the latter.

There is another kind of it called sharank מיליל or the galingale-like (as-su'di מוֹלְלֹבׁה) on account of its likeness to it. It grows on the mountain called Kâlâdhâr מוֹלְלֹי (¹) and which is on the frontiers of Kashnûr, neighbouring Waihind פּמִיל (³). The druggists say that there exists some of it (aconite) in halâwush (³), in costus and likewise in kirwa (³). It is procured by making use of water; then the aconite is precipitated and the kirwa floats on the surface."

(The last part of this paragraph is from Bîrûnî's own informations). He gives, moreover, an interesting passage upon the "poison healers," a kind of medical specialists of Old India, and a narrative about a case, of which he had direct knowledge concerning an aconite-treatment (5):

"A prominent man of Gardêz((*) told me that his father suffared severely from haemorhoids and that his conditions went from bad to worse. All the physicians of the country gathered

⁽¹⁾ Now called the Hindukush Mountains.

^(*) The ancient capital of the Province of Qandahār, now South Afghanistān.

^(*) A drug unknown in Arabio and Persian works; perhaps a transliteration of Sanwrit kilamochiké (Enhydra Heloncha D.C.) ? See Dorr, loc. cit. p. 186.

⁽⁴⁾ We were not able to identify this Indian drug-name.

^(*) In the foreword to his "Drug-bouk; " recently published in Arabio and German by M. Mexashov, Dras Foreword zer Drogenkunde des Bindrat (Quellen und Stadien Z. Geson. d. Mod. u. Naturwies III, 3), Berlin, 1932, p. 192 foll.

الدر (ا) a town now in the south of Afghanistan.

the centre of its breach is white surrounded by black. Shidder is between yellow and white; half a drachm of it is fatal, and of jandal جندال one daniq kills (1).

QUSTÂ (*) says: "It is the quickest of all poisons to kill, so much so that its smell is sometimes sufficient to strike one down. So does it also if the top of the head is painted with its fresh juice. It is of three colours, all deadly poisons. The first is the white brahman, the most malignant; it kills outright. The second resembles the horns which are found in the nand (sumbul at the horns which are found in the nand (sumbul at the horns which are found in the nand (sumbul at the horns which are found in the nand (sumbul at the horns which are found in the nand however, bish has no connection with the nard, and what is mentioned of the latter's poisonous qualities is limited and does not concern bish."

Bishr al-Guzzic' أَخْرُوا مِنْ الْجُوْرُا (*) says: "It is of five kinds, and the quickest to kill is al-halhal المنابع: it is found in the nard and resembles amber (* anbar منابع). The weight of a mustard-gram of it kills, and sometimes even a lesser weight kills, and them is no antidote. Most of that which is found in the nard is sticky, and it is that which is variegated with black and white."

Inn Mandawaih(*) says: "Kalaketi" "Tesembles galingale (bulbs, su'd); some people say concerning it that it accelerates death. It is sometimes handed over in the handle of a cane and causes harm. A silk (qazz) (*) reaches the lands of Islam with which clothes are poisoned; it is called kalkal is the tailor sews it with his fingers covered.

^(*) Here we parkly recognise the names of the nine principal poisons of the Hinth Medical System, etc.: abrisg: (aeronk), billaketa, haldhola and brakenapatra (brakenaak which were not all kinds of aconite. See U. Cu. Durr. The Materia Medica of the Hinth (revised edition, Calcutta, 1900) p. 97 foll.

⁽a) In the MS. mis-spelt Qust; he is the Christian-Syrian physician and translator Querif B. Luqa أَنْ لَوْ اَ الْمَالِكُ Geo Introduction No. 21, p. 14).

^(*) Probably spurred rye (Secole cornestess).

⁽⁴⁾ An otherwise unknown author; this paragraph is a gloss on the margin of p. 41 z of the MS.

^(*) A Persian physician, lived ab. 1000 A.D.

^(*) In the text gall je, copyist's blunder.

he learnt an Indian dialect) and taking all kinds of information from natives as well as from the Indian and Persian literature. We give here the Arabic text of this important passgraph as an appendix to Gh.'s article on bish and an almost complete translation of it:

" Bish بيش (Indian aconite). It is called in Indian bish بيش Its habitat is in India in the mountains of Kashmir, and the name of the mountain on which it grows is Shankarnistâyin (?) at the frontier of Karnāwa أَدْسَانُ (!) the distance of Adishtân المُسَانُ (!) the capital (gasaba أَدُمُسُانُ) of Kashmir (²), from it is eighty miles (karwa المُرَّفِي), and the height of the mountain is three nuiles. The lethal dose (of aconite) is half a mithqûl. It is said in the books that quails (summân) feed on it and flourish in so doing.

Hubaish (a) says: It is eaten by mice and by the quail (saked) and apparently it must be something else besides aconite. The aconite, however, resembles galingale (su'd محمد, bulb of 'Cyperus longus L.), and its kinds are, according to the sematology (asmatique محمد) of the Indians: kaldar is green bish, mankan محمد, sharank أحدد, sharank is black shidar is green bish, mankan is black shidar haldhal is yellow kashtar محمد (4).

It is said that the quickest to kill in the dose of the weight of a bar.ey-grain is kâlakût b, black and hard to break, and its breach has — a whitish centre — with three horns. Again it is said of the white brahmon that one dânig is fatal; of the sweet and hard bish, which is not compact and reddish in colour, two dânig kill. Kashtar is between white and black, hard, and

⁽⁴⁾ The name of the mountain could not be identified (Gawrinanhar ?). Karnes is mentained as a village of Kashmir in The Ats.-i-Abbari by Asur.-Fax. All.Asu, tracel. Blockmann and Jarrett, vol. II (Calcutte, 1891) p. 367.

^(*) Adhishtána is mentioned as the old capital of Kashmir in Albéráni's Incia, Eng. ed. by E. C. Sachau, vol. I (London, 1910) p. 207 & II, p. 181.

^(*) See Introduction No. 14 (p. 13).

⁽⁴⁾ Concerning the botany and the names of Indian accenter, see SEE GEORGE WATT, The Commercial Products of India (Lordon, 1908) p. 18-24.

habitats along the Alpine temperate Himalaya, with many varieties (DYMOCK I, 1-20). Aconitum heterophyllum Wall and palmatum Don. are non-poisonous, used as remedies, and may have given origin to the legend of the "aconite mouse" (vide supra). Another legend amongst the Hindus is that the mere touch of the most poisonous kinds of aconite is fatal

The western Arabic authors, as quoted by T., Gh. and IB. IBN SAMGÛN, 'ISÂ IBN 'ALÎ and IDRÎSÎ (whose unique MS. we consulted) did not know much about bish, the Indian aconite, On the contrary, the Persian physicians were well acquainted with the drug and with the Indian medical records of it.

ABÛ MANSÛR (ACHUNDOW, p. 168 foll.) distinguishes five kinds of bish, the strongest haláhal المحامة, and two mild kinds hidest عددى and shudhal شنت. They are used for the preparation of the gálf-pills in which we recognise the bal-goli of the Materia Medica of India (Dymock I, 15), pills composed of thirty-one ingredients. The haláhal is to be identified with haláhala of the Sanscrit medical treatises (1), Abû Mansûr's hidest with Sanscrit haridra.

Mîr Mohamed Husain of Khorassan, عبر به حسن الحراصات a Persian practitioner of the XVIIIth cent. a.d., gives in his enormous Encyclopoedia of Pharmacology (2) a long article on bish with much information extracted from old Persian and some Indian sources.

But the most prominent Muslim scholar who wrote about the Indian aconite was AL-Bîrônî (d. about 1050 A.D.). He devoted a long article to bish (3) full of interesting quotations and items, for he had lived more than thirty years in Ghazna (now Afghanistân), passing several times the Indian frontier (where

⁽¹⁾ T. A. Wise, Commentary on the Hinds System of Medicine. Calcutta, 1845, p. 307
Wise gives to all the drugs a rather arbitrary identification.

^(†) Malkean al-Adwiya (בי الادرة in-fol. lithogr. Teheran, 1877 A.H. p. 116 foll (†) In his unedited Kitth as-Saidans בי Drogeniused de Bibliography) fol. 40 a-44 a Compare M. Maynuxor, Die Binleitung zur Drogeniused den Bérdini. In Quellen und Studies auf Geschichte der Mod. u. Naturwin. III (1932) p. 187-290.

COMMENTARY

The ranunculacea aconite or wolf's bane and its poison were known from Antiquity. THEOPHRASTUS, DIOSCURIDES and PLINY described one kind azoverov (akoniton) which is not identical with the kinds of aconite known in our times; it must have been leopard's bane (Doronicum Pardalianches L.) a composita. Another kind is described by Drosc. (IV, 77) alone and this is identical with our Aconitum Napellus L. (" monk's hood "). The Moslim physicians Ibn Sînâ, Ibn Samgûn, al-Idrîsî, Gh. and IB., all treat this European aconite as a separate kind from the Indian one. calling the first khania ad-dib خانق الديب ("wolf's bane"). and quoting about it Drosc. alone. IBN SAMGON confuses the matter by giving the Indian bish , the Spanish name napelo. Drosc. says that the leaves, fruit and roots (bulbs) of the plant were used with meat to kill wolves, which were, in Antiquity. the plague of the Greek mountains and forests. The poison is contained mostly in the bulbs in the form of an alkaloid, aconiime (extracted for the first time in 1833 by Geiger and Hesse). from which were isolated, in modern times, about six other alkaloids (picraconitine, aconine, etc.) which are all strongly poisonous causing suffocation and mydriasis, by acting on the vagus nerve roots. Tubera, & Radix Aconiti. or Napelli, etc. are in our days still used as official drugs. The Indian kind. bish, is sold in the Cairo bazaars, (Duckos, p. 27) (1).

Oriental authors applied the name bish exclusively to the Indian kinds of aconite; this name is indeed derived from Sansarit visha, the meaning of which is "poison". The term tish is in use mostly for Aconitum ferox Wall., a very poisonous kind growing in the Himalayan mountains (Nepal). Other kinds, Aconitum buridum, Lycoctonum, Napellus and spicatum Stapf have their

⁽¹⁾ It is probably a mixture of the roots of Aconitum feron var. spicatum P.Br. with. A liminatum and crassicaulis (Goris).

in a place called Haldhal ملاهل near Sind. It is a plant which reaches the height of about one cubit, and has leaves like those of the endive (hindibd (هندبا). The inhabitants of Halahal eat it fresh or dried; but at a distance of one hundred cubits only from Sind its consumption kills all living beings, except mice and quails (salva مناوي).

AL-Mas'ûdî (¹): The kinds of aconite are three: the first is called rasis رسيس or "the dragon's head"; it is the Brahmanic white (aconite) which kills on the spot. The second is called al quran القرون ("the horns") and is found in the nard (sumbul at-th); its wood is as thin as half a finger. It is covered with white dots which are like powdered tale or camphor. The third kind is called at-tafih القالم ("the tasteless") and is equally obtained from the nard. Its length is that of a knuckle bone as if it were the knotty wood of "the Persian cane" (al-qasab al-faris), i.e. sweet-flag, Acorus Calamus L.). It is dangerous; the dose which is the size of a sesame, is drunk with vinegar against the sting of scorpions.

^{(1) &#}x27;Art R. Ar-Husahe Ar-Mas'on على من الحسن المسودي المسودي famous Arab historian and geographer who travelled about 916 A.D. in Sind, India and Coylon and died in Cairo (Fustati) o. 966 A.D. The above passage is perhape extracted from his renowned book "The Golden Meadons" (Marky adh-dhahab مروح النصب best edition, Paris, 1861-77) in which he deals largely with Nistural Edstory. But the origin of this passage goes back to Quert n. 1004 (see below).

It is a plant with long, slightly dentate and rough leaves, deep green but inclined to be greyish black. It has thin, quadrangular twigs, rising to the height of about one cubit. At their ends there are tiny flowers like those of coriander, distributed all over the length of the twigs.

There is another kind similar to it except that it has larger leaves and branches. It spreads out over the ground in its growth and has a flower which is inclined more to a purple colour. The juice of both kinds, when drunk, causes the discharge by vomiting, of viscous phlegm, is narcotic and useful against nausea (ghuthá &).

COMMENTARY

The name of this plant is probably taken from the Spanish vernacular, verbena or some other similar word. The Arabic name magnún is applied to several plants; here in Egypt, e.g. it is given to Cleome arabica L. Gh.'s description of the two is not quite in accordance with Verbena supina which has its habitat in the lands round the Mediterranean. So the question of identity remains here equally unsettled.

180. Bashâm أشام , Balsam of Gilead (Commiphora opobalsamum Engl.).

(LECL. No. 289. See above No. 117).

We cited it with the balsam (al-balasan البلسان).

181. Bîsh يَشْ , Indian Aconite Root (Aconitum ferox, laciniatum, etc.).

(LECL. No. 394).

(IBN Samgûn) (1): It is said that it is called in the foreign language (i.e. Spanish) napelo (nabâla Φ.) and in Greek τοξικόν (toxikon, i.e. "arrow poison"); it is said that it grows in China

⁽¹⁾ This quotation is found in IB.; probably left out from Gh. by BH.

is still in use in North Africa, but only for several kinds of African millet (Milium nigricans, Eleusine coracana and Penicillaria Pluckenetii, Issa, pp. 74, 119 and 136). The description of Gh. agrees more with one of the kinds of Galium (rubiacese). It is possible that there exists a knotty species in Spain. We were not able to get any information.

178. Bada ale, Undetermined.

(Leck. No. 253: badad بلد).

A herb whose leaves are like those of coriander (bushara e.f.). Its twigs are abundant, shooting off from a single root and are slightly red. Its root has many thin divisions, not white in colour, but feetid in odour. It grows amongst other cultivation. It destroys warts when used as a paint.

COMMENTARY

This plant equally belongs to the group of undetermined names from Gh.'s own observation. The name is in our MS. T. clearly spelt bada منافر, but in all the other MSS. and the printed editions of IB. badad منافر or badhadh: It is surely a Spanish name, perhaps bidente (bidens), designating a group of compositae (Coreopsidinae), some of which have a corrosive juice, and may have been used for eradicating warts.

179. Barbîna المرية, Uncertain, (Verbena?).
(LECL. No. 260).

It is also called marbana مريانه (1) and in Berber antamate (2); it is also called "the insane" (al-magnan أخوت), and it is said to be the wood (al-'izlim أنظما, Isatis tinctoria L.).

⁽¹⁾ IB. spells barbdua+1/2, which is probably a more correct reading.

^(*) Here IB. spells ablimett أبر يوت; Gh.'s reading seems more correct.

COMMENTARY

The plant in question has so far not been identified. The foregoing paragraph is Gh.'s own; IB. who quoted it gives the exact vocalisation of the word bilikhta (in the plant of the word bilikhta (in the plant of the word bilikhta (in the plant). Simoner (Glosatio p. 439) derives this name from Latin pleata (in the laced) and identifies the plant with the composita Hieracium pilosella L. (common hawkweed). The description of the plant applies to many desert plants. Gh. states that its use in gargarisms causes leeches to fall off (which latter abound in the pools of North African deserts and are easily swallowed by men and beasts). This makes us think that the plant must have a strong bitter-saline flavour, which is a characteristic of the many species of Salsola (salt-wort, etc.), e.g. Salsola vermiculata L., which bears this name on account of its resemblance to worms. Its Arabic name to-day is sharira & p. (Issa, p. 161).

177. Bashna الشنه, Uncertain, (Galium?). (Lecl. No. 290: bishna شنه).

A thin plant with many thin twigs which shoot from one root; it spreads out on rocks, where it usually grows, and reaches the height of one finger. It is knotty like the sharushvaplant (1); its greenness is inclined to yellow and white. Its leaves are thin and round and covered with fine down; on them is a viscous substance like honey. It has a very tiny white flower followed by seeds, like fine coriander-grains, kept in small husks. In its flavour there is bitterness and a little astringency. Drinking of its decoction opens obstructions and relieves flatulence.

COMMENTARY

The identification of this plant has equally been impossible in spite of Gh.'s detailed description. He must have seen the plant himself in Andalusia or Morocco. The name bishna in

⁽¹⁾ So vocalised in the text T.; G. reads charchers مُرِّدُ بِيَّهُ اللهُ عَلَيْهُ اللهُ اللهُ اللهُ اللهُ اللهُ اللهُ عَلَيْهُ عَلَيْهُ اللهُ اللهُ اللهُ اللهُ اللهُ اللهُ عَلَيْهُ عَلَيْهُ اللهُ اللهُو

175. Ballût al-Ard بأوط الارض, Uncertain (Cyperus ?). (Legg. Nos. 174, 340 & 749).

IRN 'IMEAN: Roots resembling acorns, being subterranean like them. On the surface of the earth they appear as broad green leaves like those of the small endive (saris ", Cichorium divaricatum Schousb.) (1). It grows in sandy places, often under the roots of the balsam-tree (2). Its flavour is bitter with some sweetness like that of acorn. It is hot, aperient and diuretic.

COMMENTARY

176. Biškhtá نخب , Uncertain. (Salsola vermiculata L.?).. (LECL. No. 343).

A herb which grows prostrate on the ground. Its twigs are very thin, but not so are the leaves; they (the twigs) do not resemble branches; they look as if they were worms; these branches unite together and form circles on the surface of the earth. It (the plant) has a small white flower with some redness in it. It is used as a gargarism to make leeches fall off.

⁽١) In T. mis-spelt shirts شير , in G. shirts شير , it is the the Greek αέρις (aéris), ahioory, endive.

^(*) This probably is a false reading of the text (bashim مِثْلَ Commissions Opobalcamens). IE, reads shamin المُثَّ بُدُ fance, equally not probable.

174. Buhmā Ar, , Ray-Grass (Lolium perenne L.). (LECL. No. 368).

Diosc. IV (43) points, (phoints), A plant whose leaves (fol.23 v) are like those of barley, but shorter and smaller. Its ear is like that of darnel (shailam to Lobert Lob

COMMENTARY

The identity of this kind of the Greek optivity (phoinix) with the graminea Lolium perenne L. was proved by Sprenger and Fraas (1). The English ray-grass is smaller than the Italian (Lolium multiflorum); its medicinal use for diarrhoea, etc., was stopped. It is sown in our days on turf. The name bulima in the seems to be of Syriac origin, although missing from all the dictionaries and from Loew's Flora der Juden.

Bîrûnî gives two lines about this plant, quoting a lost passage from the most famous early book of plants:

"ABÛ HANÎFA says: Al-buhmû has very fine grains which the ants gather in their hills; when people strike at it (an anthill) they dig it (the grain) out; its flavour is like that of barley."

SYNONYMS: Gr.: סְסוֹעוֹלְ (phoinix), הְסֹנֶּע (rhūs), ἀγχύνωψ (an-chinops, Diosc.); Lat.: lolium (Pliny); Ar.: buhmā רְיר (Gh., IB.), hashishat al-faras ביים ("horse-grass," Mod. Syria), sammāh ביים (Mod. Egypt, Schweine), nusēla ביים (idem); Pers.: buhmā בייר (Steingass); Turk.: no proper name; Eng.: common ray, ray-grass; Fr.: ivraie pérenne; Germ.: ausdauernder Lolch, englisches Raygras.

⁽¹⁾ The name phoinix also designates the date-palm, the dwarf palm (Chamacrops humikls), Nannorhops ritchiana and Callophyllis lacinista (Traxorm., ed. A. Horr II, 481 foll.).

ABO MANSOE (p. 165) describes the drug under the same name, but the translator Achundow (p. 353) confuses birang or birank with biring £, the Persian term for rice, although he identifies the drug correctly with Embelia Ribes.

The berries contain embelic acid and are used as a strong vermifuge. They were recommended by Dr. Harris (cf. *The Lancet*, July 23, 1887) as a remedy against tapeworm. The ammonia-salt of embelic acid was afterwards prepared by Merck (Darmstadt) in the form of a modern preparation.

SYNONYMS: Ar.: birang בַּׁב, badang בַּּב. (MAIM, No. 66);
Pers.: biranj or birank-i-kâbili בָּב עִינִים אַלַ אַ. No names in European languages.

173. Bâgirûgî بروجی (Undetermined).

(LECL. No. 228).

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AGRICULTURE: It reaches the height of three cubits and grows in arid and dry soil. Its leaves are like those of the winter cherry (al-kākang is aligned), Physalis Alkekengi L.). It produces a pink-coloured flower which is followed, when it falls off, by a grain of the size of a chick-pea or smaller, black and soft. Its fruit and leaves are used with vinegar as compresses against soft tumours (sal' aligned) and warts (tha'ālid aligned). Its fruit is nauseous, emetic and harmful to the trachea. It must not be eaten. Its leaves are useful for haemoptysis, but must not be taken more than once.

COMMENTARY

The incomplete description of this plant does not help towards an identification. The name, too, is probably mis-spelt It may be of Berber origin, beginning with tā v, or a Syriac mutilation of some Greek word (bākharāgi, bagarākhi, etc.). black and white and devoid of smell. They are imported from China. It (the drug) is hot and dry in the third degree and expels worms and proglottides (habb al-qar' حب القرع, taenia).

172. BIRANK KABILI بنائلي (Embelia Ribes Burm.). (LECL. No. 259).

IBN SîNA: It is Sindian (1) or Indian. It is of two kinds, one small and not variegated (2) and the other big and variegated. The smaller are the better kind. It purges phlegm and (expels) intestinal worms and proglottides (taenia).

AUTHOR: I think it is the same as the last mentioned birang.

COMMENTARY

Gh.'s last assertion is correct: birang & is only an Arabic transformation of the Persian birank. The identity of this drug was fixed, not by Leglerc, but by Dymock who consecrates to it a long article (II, 349 foll.). It is the fruit of Embelia Ribes Burm. (Myrsineae), a plant growing in all parts of India. The dried berry is globular, about 4 m/m in diameter, reddish-brown and marked with dark spots (Dymock II, 350) and has a somewhat astringent and aromatic taste. Its name in Sanscrit vidanga and is mentioned by the ancient Indian surgeon, Sushruta as that of an anthelmintic (Dymock). From this name was derived viranga, biranga and bahwang in Hindustan and Bengali, and birank, biranj in Persian.

IBN Sînâ, the Persian, was better informed than the Spaniard
IBN Wâfio, when he wrote that the drug came from India.

We learn from this paragraph that the drug was imported into the West by way of Kâbul (now Afghanistân) and that there were several kinds of it; the big one may have been the berry of Embelia robusta Roxb.

⁽¹⁾ Sind is the lower Indus Valley Province.

^(*) In the texts of T. ahd G., meshageag ششن (split up) instead of mujannan مان (variegated); this last and correct reading is found in Inn Sink's Qdass I, 272, I, 27.

COMMENTARY

IB.'S article on this drug is much longer than Gh.'s, and is full of quotations from old Arabic and Persian authors. Idensit (p. 61) quotes, besides Dioscurious, Bâdighûras and Ar-Râzî. Dâwûr (I, 147) recommends polypody as a remedy for cough and asthma.

171. Birang 🕁 , (Embelia Rives Burm.).

(LECL. No. 259, Borindj).

IBN WAFID (*): Small grains about the size of the habbalmash حب الماخي, (grains of Phaseolus Mungo L.), spotted with

[.] أضراس الكاب Probably mutilated from adrds al-halb بأضراس الكاب

^(*) See Introduction No. 40 (p. 23).

It seems that it was not known to the Arabs, and IB. was probably not able to identify Dioscurings' description. As to the names of other kinds of scabious, see Lorw I, 586 foll. According to Dragend. (646), Scabiosa succisa L. (Succisa pratensis Mönch), called Morsus Diaboli could be the pyknomon.

179. Basbâyig السباع, Polypody (Polypodium vulgare L.) (LECL. No. 280).

Drosc. IV (186): πολυπόδιον (polypódion). It grows on mossgrown rocks and on the trunks of old oak-trees and on the tree-moss (ushna מוֹבְּילֹים). It is about a span high and resembles the plant called πτέρις (ptéris), the male fern (as-sarakhs السرخس (n) it there is some down which is long but not as fine as that of ptéris. The root has branches like the fish (marine animal) called polyp (kathîr al-argul أَدُرُ الْأَرْجُلُ . It is as thick as a little finger. If rubbed, the colour of its interior appears to be green. Its flavour is astringent and inclined to sweetness; this is the best (kind).

GALEN VIII (XII, 107): It is dessicative without pungency.

Drosc. (*): It is given cooked with fowls, fish, white-beetroot (salq مالوخية) or Jew's mallow (muldkhiyya, مالوخية , Corchorus olitorius L.) (*). It purges black bile and phlegm without provoking colic or causing any harm.

IBN MASAWAIH: It is also cooked with barley-water. The dose given is from one to five drachms, boiled or strained.

AL-MAG ÛSI (4): Or finely pounded with sugar.

IBN SARABIYON (5): Or with barley-water. It purges the tenacious chyme from the stomach and the articulations, but causes nausea.

⁽¹⁾ This phrase and the following are in disorder in both MSS. (T. and G.).

^(*) The name is missing from T. and G.

^(*) In Greek μολόχη (molókhé).

⁽⁴⁾ See Introduction No. 27 (p. 17).

^(*) See Introduction No. 18 (p. 13).

Symonyms: Gr.: πολύγαλον (polýgalon); Lat.: polygala (Pliny XXVII); Ar.: bāldīghālum بولوغالن , hashīshat al-halīb بالله بالله (" milk herb"), a term to be found only in Persian dictionaries; Pers.: same names and shīr giāh " شركة (" milk herb"; Turk.: same names and siū otu سود أون " milk herb," Avni 485), sūt otu سوت أون (Samy); Eng.: milk-wort; Fr.: polygala (commune, amère), herbe au lait, laitier; Germ.: Kreuzblume, Kreuzwurz, Milchwurz.

169. Bûqnûqûmun بوقنۇدن, Uncertain Kind of Scabious, (Scabiosa ambrosioides Sibth ?).

(LECL. missing) (1).

GALEN VIII (XII, 110): In its root, fruit and leaves are resolvent and attractive properties to the secundine. The fruits are more powerful than the leaves, but both are still more powerful than the root. It purges the yellow bile. One drachm of its fruit, drunk, provokes evil dreams (2).

COMMENTARY

The sunvino nov (pyknókomon) of Dioscueides, Pliny and Galen has been recognised as a kind of scabious. Frass prefers the dipeacea Scabiosa ambrosioides Sibth. (Cephalaria ambrosioides R. et Sch.), on account of its bulbous root and its rocket-like leaves, a plant which is not rare in Greece (Berendes 467).

⁽²⁾ It is also missing from Issa's Dictionary of Plant-names.

^(*) This last phrase is missing in the editions of Gazun's De Simplicium Medic. Temp. sc Facult.

The "Arabic" name comes from a Persian origin: parsiyawushan ביילי, (ג'); Dâwûn (I, 138) takes it for a Greek name and explains its meaning as "chest remedy."

Synonyms: Gr. adiavrov (adianton, Theophe.), πολύτοιχον (polytrichon, Diosc.); Lat.: adiantus, callitrichon (Priny XXII); Ar.: barsiydwshdnilip المعرافية ("giant's hair"), sha'r al-gabbdr المعرافية ("giant's hair"), sha'r al-ginn معرافية ("demon's hair"), sha'r al-ard ("pig's hair," all by ("earth's hair"), sha'r al-khandzâr المعرافية ("pig's hair," all by B.), lihyat al-himdr المعرافية ("ass's beard"), kuzbarat al-bîr, all by ("coriander of the well"); other names refer to the black twigs, as, e.g. al-wash ("the negro slave," IB.); see Issa, p. 6, and Loew I, 11-12; Pers: same names and parsiydwushdn المعربة والمعربة والمعر

168. Bûlûghâlun بولوغالن, Milk-wort (Polygala vulgaris L.).. (Lecu. No. 377).

Diosc. IV (139): A plant about a span high; its leaves are like lentil leaves and astringent. It is said that when drunk (in infusion) it acts as a galactagogue.

GALEN VIII (XII, 105-6): If it really increases the flow of milk, as it is said, it must be of a moderate heating and moistening power.

COMMENTARY

Modern botanists declare this plant to be one of the kinds of *Polygala*: *P. vulgaris L., P. venulosa Sibth.*, common in Greece, or *P. amara L.*, common in Italy. Not long ago, it was a medicinal drug (*Herba et Radix Polygalae*). The herb contains a bitter substance, polygalamarin (Luerssen II, 721).

^(*) Lo. "hair of (the hero) Siyawush," father of king Cyrus,

167. Barsiyâwshân رسياوشان, Maidenhair (Adiantum Capillus Veneris I.).

(LECL. No. 256).

It is "the giant's hair " (sha'r al-gabbar مشعر الجبار) and "the coriander of the well" (huzbarat al-bland). أو البريمالية

Drosc. IV (134): ἀδίαντον (adianton) and sometimes called πολύτριχον (polýtrichon). Its leaves are like those of the coriander with dentate edges; its twigs are black, hard, thin and about a span long; it has no stem, neither flower nor fruit. Its root (fol. 23 r) is of no use whatever. It grows in shady places, on the walls of damp caverns and near the lakes formed by natural sources (1).

GALEN VI (XI, 814): It is drying, refining and resolvent in a moderate degree, intermediate between hot and cold. It helps the expectoration of tenacious mucus from chest and lung.

Drosc.: Its decoction is useful against asthma and spleenache, is lithotriptic and confines the bowels.

AR-Râzî: Its property is transient.

IBN MASAWAIH: Six drachms of it purge the yellow bile from the stomach.

COMMENTARY

The plant in question is the well-known pteridea (fern) Adiantum Capillus Veneris L.; its habitat is in many tropical lands, but it grows in the Alps and even in the Southern part of the British Islands. Its beautiful leaves of sweetish-bitter flavour are still, in some lands, used as an official drug (Herba s. Folia and Sirupus Capillorum Veneris) (Luerseen, I, 559) against cough and asthma.

⁽⁴⁾ This passage is missing in Diocourness original text, and likewise from Hunain's translation of it; it must be an interpolation by an Arab scholar.

Synonyms: Gr.: متدعة (petasitis); Lat. (Medieval); tussilago petasites; Ar.: transliteration of petasitis, and hashishat al-qar'an مشيعة القرعاف (Syria, Berggr. 868); Pers.: sunnj منتج (Steingass; also in use for red jujube; Turk.: öksüruk otu اولى " cough herb"), deve tabâni دو الله " cough herb"), deve tabâni دو الله " cough herb"), teve tabâni دو الله " cough herb"; Fr.: pétasite, herbe aux teigneux; Germ.: grossblättriger Huflattich, Pestwurz (i.e. " plague root); Span.: yerba de los tinosos, sombrerera (" broad-brimmed hat-plant").

166. Bûniyûn بونيون (Bunium pumilum Sibth. ?). (Legge. No. 376).

GALEN VI (XI, 852): It is hot, diuretic and emmenagogue.

DIOSC.: Its seeds are heating, diuretic, expel the placenta and are healthy for affections of the spleen, and bladder.

As to ψευδοβούνιον (pseudobūnion, i.e. false būnion), it is a 64μνος (thūmnos, shrub) of about three spans and grows in the Island of Crete; its leaves are like the leaves of βούνιον (būnion).

GALEN VI: Pseudobûnion is heating in the same degree as bûnion.

COMMENTARY

The identity of βούνιον (bûnion) has not yet been fixed. Frazs thought it to be the umbellifers Bunium pumilum Sibth, but DIOSCURIDES' description of the flower does not agree with it.

However, \$\psi_\text{uloofscovico}\$ (pseudobûnion) is identified by Griesebach (Berendes, p. 434) with Pimpinella dioica Spr. a kind of pimpernel which is frequent in the mountains of the Balkan Peninsula. This identification has not convinced all authors.

gawtharân (מרבי (Gh.), labîda baidâ (בול בי יישל (Nafiox I, 200 a); Pers.: bûsîr יישל פיישל (i.e. "fish poison") (all the three Vullers I, p. 278), dum-i-gaw (Schlimmer, p. 559), labîda-i-safîd בי ישל (Nafiox), bang-i-sapîd ("Ox-tail", Avni, Samx), rabî a chicheyî ("Ox-tail", Avni, Samx), rabî a chicheyî (אבי ישל (Hanjére I, 280); Turk: sîghîr quyrûghî ("Ox-tail", Avni, Samx), rabî a chicheyî (אבי ישל (Hanjére); Eng.: mullein (white, black, yellow), cow's lungwort, high taper; Fr.: molène, bouillon (blanc, noir, jaune), bonhomme, cierge de Notre-Dame, fleur de grand chandelier; Germ.: Königskerze, Wollkraut (the flower).

165. Bâtâsîtîs باطاسيطيس, Butter Bur (Petasites officinalis Mönch.).

(LECL. No. 231).

Diosc. IV (107): It is a shoot about one cubit high or more, in the thickness of a thumb, and with leaves like large wings. At the summit of the shoot there is something sticky, as if it were a mushroom (futre (sale)). Its leaves, if crushed and used as compresses, are useful for malignant ulcers.

GALEN VIII (XII, 98 f.): It is dessicative in the third degree.

COMMENTARY

This plant is the composite Petasites officinalis Mönch., well-known in the forests of Europe (1). The end of the first phrase of the Arabic text is a mistranslation from Drosc. who compares the leaves and not the umbel of the plant to a mushroom. He does not speak of "something sticky." The leaves were formerly in use as cataplasm for skin diseases, ulcars and bubos, wherefrom are derived the French and German names of the plant, while the Italians used it more for internal diseases, especially cough (tussilagine maggiore).

⁽⁴⁾ The greek name is derived from the Hiemess of the very large leaves with a wetgoog (polesce), the broad-infirmed rain-hat worn by shepheards and hunters. The plant is a near relative of columbot (Texasilgo Ferigoro) side supra No. 149.

IBN Sînă (I, 283), IBN GAZLA and Bîbûnî call the plant bâsîn; Idnîsî (p. 58) spells it correctly bâsîn, but thinks it to be a Persian name and does not recognise the identity of the plant with the phlomos of Dioscurides. He gives a short but correct description of the shrub.

Dâwbo's paragraph (I, 171) is so interesting that we give a translation of its first lines: "Búsirā, برصيرا", in Greek phlomos, i.e. "wolf's ear" is also called muskir al-kūt "intoxicant of the fish") because its bark is kneaded with flour and east into the water; the fishes then float on the surface quite insensible." After giving the description of the different kinds of mullein, Dâwbo mentions that the leaves of the "male" kind are pear-shaped, that the "female" leaves protect figs from becoming rotten, that the "male" catch cockroaches (sarāsīr المراصد) and that all kinds stop haemorrhages and heal wounds. The marcotic action of mullein on fish appears to have been known long ago (Dymook III, p. 1). The active poisons in the plant are several kinds of saponine, very soluble in water.

SYNONYME: Gr.: φλόμος (phlómos), φλομίς (phlomís, Diosc.), λυχνίτις (lyclinitis), θουαλλίς (thryallis, Diosc.); Lat.: phlomos, phlomis, verbascum (Pliny XXV); Ar.: būsin אַ פּייִר (Gh., Idrīsī), פּייִר (Gh., Idrīsī), פּייִר (Gh., Idrīsī), المعالى: (Gl., Idrīsī), المعالى: (Gl., Idrīsī), المعالى: (Gl., Idrīsī), būsin al-anzān المعالى: (Dissa, 187, 12), ādhān ad-alubb المعالى: ال

from the white one by its broader leaves; otherwise it resembles it in all its other characteristics. There is another kind of this plant called wild φλομίς (phlomís), with long twigs reaching by their length the branches of trees, with leaves like ἐλελίσφακος (bielisphakos, sage, Salvia officinalis L.). The branches carry round bodies like gloves, as does κράσιον (prásion, horehound, Marrubíum vulgare L.). Its flower is golden-yellow.

And there is still a third species of the plant called phonic. (phlomis) of which there are three kinds; two are downy and stick to the earth (soil), with round leaves. The third kind is called hourning (lychnitis) or "that of the lamp," and it is also called hourning (thryallis) or "the lamp-wick." It has three, four or more leaves which are hard and covered with down, and contain a moisture which sticks to the hand; it is used for making lamp-wicks.

GALEN VIII (XII, 150): The root of the two first kinds has: an astringent flavour. The faculty of all the kinds is drying, moderately detersive and resolvent. The kind with golden flowers dyes the hair red (fair).

COMMENTARY

The name of this plant is everywhere spelt bloss seed, and its origin is not explained anywhere. It is a Syriac name—posaibly derived originally from Persian—and is recorded by Lorw (Aramaeische Pfanzenmamen, Leipzig, 1881, No. 41) and now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Lexicon Syriacum, p. 63 a). It is bisina now by Brockelmann (Scrophulariaceae) and Phlomis (Labiate). According to Leclera and Breendes (p. 426) the determinations given by Sibthorp and Fraas are the most likely. The white female phlomos corresponds to Verbascum Thapsus L. (mullein). The black phlomos (φλόμος), known also to Theopera, is considered to be Verbascum simuatum L. (black mullein). The

According to Dâwûn, the whitish and fresh seeds are the best for medical use.

SYNONYMS: Gr.: ψόλλον (nøyllion); for other names see Diosc. above, moreover ψυλλερίς (nøylleris, Diosc.); Lat.: same names; Ar.: bizr qatûna ג'יג פֿפֿפּל , al-barghûth יליבי , hashîshat al-barghûth יליבי , habbî al-baraghûth יליבי , habbî al-baraghûth יליבי , for other names see Issa (p.142, 8); Pers.: asfiyûs יליבי , asfiyûsh יליבי , aspîyûsh יליבי , aspîyûsh יליבי (Vullers I, 90), khar-ghût יליבי / (Vullers I 677), khar-gûschk יליבי (Vullers I, 681), asfarza יליבי (Schilmaner, p. 461); Turk.: pirê otu יליבי (Handjêri), qârnî yârîq יליבי (Avni) (¹); Eng.: flea-wort; flea-seeds; Fr.: psyllium herbe aux puces pucière, pulciaire, plantain des sables, graine de puces; Germ. Flohsamen-Wegerich.

164. Bûsîn פישייַט (²), Mullein (Verbascum Thapsus L.) and others.

It is al-guwtharan الحوثران, and in Berber barbashka (3).

Drosc. IV (103): φλόμος (phlómos) is of two kinds, white and black. The white is a female plant. Its leaves are like those of cabbage, except that they are covered with down and are broader. The length of its stalk is about a cubit or more. It is white and downy; its flower is yellowish-white, and its seeds are black. Its root is long, astringent and as thick as a finger. It grows in deserts. The male plant has likewise white leaves which tend to be long; but both leaves and stalk are thinner than those of the female plant. The black-leaved kind differs

^(*) The meaning of the Greek word ψύλλα (psjila), the Arabic barghitth and the Turkish pirt a.g. is "fles."

^(*) In both MBS. belafa بوصين, clearly written.

^(*) In both MMS. barndekka مُحَالِيٍّ; it is Verbasca, Spanish verbasca or Latinverbascum, erroneously taken by Barneblauus to be Berber; the Berber name as trans.
mitted by IB, is daungen. مُحَالًى اللهُ ال

GALEN VIII (XII, 158): It is cold in the second degree, of moderate moisture and dryness.

Diosc: It is of a cooling faculty. If used as compresses with vinegar, attar of roses and water, it becomes beneficial in arthritis.

ANOTHER AUTHOR (1): The best kind is the large and full which does not float in water. If cut to pieces it is astringent and confining to the bowels and useful for dysentery (sahag). The powder must be used with care, because too big doses are fatal.

COMMENTARY

This is Plantago Psyllium L., the flea-wort, a plant which is common in South Europe, North Africa and Asia. Its secds contain a kind of mucus and are much in use in the Orient for inflammatory affections especially of the eyes. In Europe they are a medicinal drug for diarrhoea under the name of Semina Psyllii.

The name qatana قطونا is of Syriac origin, and is always used with the epithet bis or base برد " seeds." The Persian name asbiyas أسيوس or asfiyas اسيوس is, according to VULLERS (I, 90 b), a mutilation from asp-gash أسب كوش أ, i.e. " horse-ear."

Nearly all the Arabic authors repeat the description of Dioscuribes. Dawor (I, 144), however, describes three kinds of flea-wort: (1) a big and medicinally excellent kind in Syria; (2) a red kind, a little less efficacious, growing in Lower Egypt and called by the Egyptians al-burullusiyya الراسية, from lake Burullus near the Mediterranean coast; (3) a black kind which is less good, brought from Upper Egypt and therefore called as-sa'ta' . We suppose that the second kind may be Plantago crypsicides of arenaria, the third Plantago ramosa Ascherson, the seeds of which are still sold in the Cairo drug bazaars (2).

⁽¹⁾ According to IB, this author is IRW MASAWAIH.

^{(&#}x27;) This has been stated by Fenan and Schweinfuhre., Duckes found only Plantage P-vilian.

drug is offered in a very popular aphrodisiac electuary called manzil שינפל (formerly ma'quîn מינפל).

In the European pharmacopoeas the different parts of hyoscyamus are still official preparations (Folia, Semen, Tinctura, Extractum, Oleum, Unquentum, Emplastrum, Emulsio Hyoscyami), and there even exist anti-asthmatic cigarettes containing henbane-extract, in the Belgian Pharmacopoea (Luerssen II, 986-987).

Synonyms: Gr.: ὑοσκύαμος (hyoskýamos); Lat.: hyoscyamus; Ar.: bang ביי, saikarán, sékarán, síkrán أَسُورُ اللهِ , shíkrán اللهُ (Syria and Palestine, Bergge.), simm el-fár اللهُ (Palestine, Post), qullét er-ra'î اللهُ (Palestine), abú merjúf اللهُ اللهُ (Palestine), abú merjúf اللهُ اللهُ (Palestine), shí merjúf اللهُ اللهُ (Palestine), abú merjúf اللهُ اللهُ (Palestine), abú merjúf اللهُ اللهُ (Palestine), bún otu اللهُ اللهُ (Hanyéri, Avni, Samy); Eng.: henbane, hyoscyamus (black, white, etc.); Fr.: jusquiame, potelée, mort aux poules, etc.; Germ.: Bilsenkraut, Hühnertod, Zankteufel.

Egyptian 1 , ink Coptic ene, enora.

163. Bizr Qatûnâ يَنْ فَطُونًا Fleaseeds (Plantago Payllium L.). (Lecl. No. 278).

It (the plant, flea-wort) is called in Persian as figula اسفيوس.

Diosc. IV (69): ψύλλιον (psyllion). It is also called κυνοκέφαλον (kynoképhalon). The Sicilians call it κουστάλλιον (krystállion), and others κυνοκόνα (kynomýia). It is a plant with leaves like those of κορωνόκους (korônópûs) (3); they are covered with down. Its twigs are about a span long, and the origin of the umbel is from the centre of the plant. On its upper end are two or three capitula, round, containing seeds like fleas, black and hard. They are the ones used (in medicine). It (the plant) grows in (fol. 22 v.) cultivated land.

⁽¹⁾ This name is also given to Conius maculatum (hemlock).

⁽a) Doubtless derived from Aramaic.

⁽⁹⁾ This is supposed to be the lagurainosa Lotes ornithopodicides L.; but we think it is now in likely be be Plustage Goronopus L. (Known in Lower Egypt under the name of addrine 4-5).

have been found, although six kinds of hyoscyamus grow in the Egyptian deserts (1). The supposed Ancient Egyptian names spet and safti (TSCHECH I, 468) are quite uncertain. The active toxic principles of Hyoscyamus are the alkaloids hyoscyamin hyoscin and scopolamin (or atropin).

The name bang is derived (though Persian bank it) from Sanscrit bhanga which designates another toxic drug, the Indian hemp (Cannabis sativa L. var. Indica). In modern Egyptian Arabic the word bing is applied to every kind of narcotic, bannaga if for "narcotise" and tabnig if for "narcosis." Sékarán is an old Semitic word for intoxicating, inebriant drugs. Other kinds of hyoscyamus and its varieties have similar names (sékarán if it is an indication), etc.).

Most of the Arabic and Persian authors simply repeat Dioscurides' description of the plant, but add many indications for the medicinal use of the drug.

Brauni first gives the Syriac name for the seeds, 200's shakhrond אונען (א), the Indian hâtârâ (א), and then quotes many authors of Persian and Central Asiatic origin. Following that, the text is in disorder in the Brussa MS.

Dawor (I, 166) gives the Berber names afangit معرفة and asgards المقبرات (؟). His description of the plant is independent of that of Droscourines. He thinks that all kinds are nearly alike in their toxic action. The annual and biennial varieties of henbane were unknown to the Arabic physicians.

Not long ago the leaves were sold in the drug bazaars of Cairo (Duckos p. 24). The flowers and seeds (called birzebing instead of bir bing ::) were official drugs, but they are sold now only by licensed pharmacologists. The seeds of Hyoscyamus L. which is frequent in Egyptian deserts are still to-day used by criminals for narcotising and robbing their victims. The

⁽¹⁾ See the very detailed and learned publications of Inzantz Ragan Fainty, Hyperson smiless and Hyocs, albus ser. Deservores in Report of the Pharmaceutical Sec. of Egypt II (Cairc, 1931), pp. 1-36.

^(*) Probably a mutilation of tothers 3, it with which al-Fazari confused the drug-

The other has apple-coloured blossoms and leaves and flowers softer than those of the first kind; it has reddish seeds like those of iposupor (erisimon, hedge-mustard, Sisymbrium officinale Scop.). These two kinds are bad, causing mania and lethargy. The third kind, which is soft to the touch, has an exudation which sticks to the hand and is covered with a growth between dust and down. It has white flowers and seeds. It grows near trees and in ruined places. If this kind is not available one has to use that with red seeds. The black kind is to be rejected on account of its dangers. The juice of this plant is better and more powerfully sedative than its gum.

GALEN VIII (XII, 147 foll.): The kind with black seeds and that with the red ones are deadly and cause madness; the white is used in medicine; it is cold in the third degree.

ANOTHER AUTHOR (1): The white henbane enters among the group of remedies that fatten, because it thickens the blood. If its smoke, when burnt, is conducted through a tube to an aching tooth, it soothes the pain.

COMMENTARY

The plant is the solango a Hyoscyamus (henbane) and the three kinds described by Dioscurides agree with H. niger L., H. aureus L. and H. albus L. Instead of the "apple coloured" (yellow) H. aureus, Sprengel proposes H. reticulatus L. The saikarān mentioned by Gh. is a desert variety of H. albus (Acherson) or H. muticus L. (Egyptian henbane) which is frequent in the deserts of North Africa, Egypt, Persis and India. This latter plant, particularly rich in alkaloids (2), causing severe intoxication, (maniacal attacks followed by coma), was known to the Ancient Greeks. It is unexplainable that there do not exist any documents from Ancient Egypt referring to henbane, and no remains of it

⁽¹⁾ IB, says that this author is IBE STEL, but this is a mistake.

^(*) According to I.R. Farmer (see below) it contains about 0.77 per cent, mostly hyos-syzemine (as compared with 0.08 per cent maximum in Hyoseyannus niger!).

It seems that the introduction of the papyrus plant into Sicily was due to the Arabs during their domination of the Island (Xth cent. A.D.) (Mechithar, Seidel, p. 157). Dâwûn (I, 138) 1 entions the presence of papyrus bushes in his time (XVth cent. A.D.) in Syria. He erroneously gives the name of halfa, tide instead of hafa' bis.

SYNONYMS (for the plant):

Anc. Egypt.: ﴿ ﴿ ﴿ لَا لَهُ لَا لِهُ لَا لَهُ ﴿ وَمَالِهُ وَاللّٰهُ لَا لَهُ ﴾ ﴿ وَمَالِهُ وَمَالِهُ وَمَالِهُ وَمَالُوهُ وَلَا اللّٰهُ وَمَالُمُ وَمِنْ اللّٰهُ وَمَالُمُ وَمَالُمُ وَمَالُمُ وَمَالُمُ وَمَالُمُ وَمَالُمُ وَمَالُمُ وَمِنْ اللّٰهُ مِنْ اللّٰهُ وَمِنْ اللّٰهُ وَمِنْ اللّٰهُ وَمِنْ اللّٰهُ وَمِنْ اللّٰهُ وَمِنْ اللّٰمُ وَمِنْ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰ اللّٰهُ اللّٰ اللّٰهُ اللّٰ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰ اللّٰهُ اللّٰهُ اللّٰهُ الللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰهُ اللّٰلِمُ اللّٰهُ اللّٰلِمُ اللّٰلِمُ اللّٰهُ اللّٰلِمُ اللّٰهُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّلْمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ اللّٰلِمُ الللّٰلِمُ اللّٰلِمُ اللّٰلِمُلِمُ اللّٰلِمُ الللّٰلِ الللّٰلِمُ اللّٰلِمُ الللّٰلِمُ الللّٰلِمُ اللّٰلِمُ الللّٰلِمُ

162. Bang :, Henbane (Hyoscyamus niğer, albus, aureus L.).

(LECL. No. 356).

It is known in our land (Spain) under the name of saikarân المسكران, but saikarân is in reality something different.

DIOSC. IV (68): ὑοσκόα νιος (hyoskýamos) is aθάμνος (thámnos, shrub) with thick twigs, long broad leaves, dentated edges and of blackish colour covered with down; on the twigs grow fruits shaped like pomegranate-blossoms (gulnār رجمال , distributed one after another on the whole length of the twig and covered with something like a lupin grain (turmus رحمن) (2). This fruit is full of seeds resembling poppy-seeds. It is of three kinds: one with purple flowers, leaves like σμίλοξ (smilax, rough bindweed) black seeds and a flower like the pomegranate-blossom, but thorny.

⁽¹⁾ Kaución is the general name for rush; set above, art. No. 67 (asat أحلُ), p. 162.

(2) The fruit is a small, two-celled capsule with a kind of lid on its top: it is this which Gh. compares to a lupin-grain. The modern botanical term for this kind of pod is

bushes with two broken stalks of the plant with the buds at the sides a quite characteristic aspect of the plant. In later periods the name of papyrus was [] I twy, Coptic 20074 dioout, which passed into Hebrew as sut no. The plant was also at home in Palestine, in the Jordan Valley and on the banks of Lake Tiberias. The very early use of papyrus for the manufacture of paper, a very precious export of Egypt during the old periods and down to the Xth cent. A.D. is proved by numerous findings of papyrus sheets and rolls dating from the first Egyptian dynasties (after 3000 A.D.). The use of the stalks as a food is equally very old. It is corroborated by the savings of Herodotus, Theophrastus, Diodorus and Pliny. Recently, L. Kemer (1) was able to prove that the asparagus-like bundles represented on Egyptian monuments among the offerings, are the lower ends of papyrus stalks. The root was chewed and sucked as is done with sugar-cane to-day. The medicinal use seems to have been restrained to burnt papyrus-sheets, which had the action of pulverised charcoal and were used for certain eye discases.

For the names of papyrus in Semitic languages see LOEW I, pp. 563-70 and 575.

Among the Arab writers Gh. gives his opinion of the male and the female papyrus plants. He must have seen the plant in Spanish gardens. The second kind of rush which he describes, is not a Cyperus. Idra's (p. 45-46) gives a good description of the plant, but does not mention its occurrence in Sicily, where he lived at the court of the Norman kings. On the contrary, Abu'i-'Abbâs An-Nabâri, Ien Al-Barrâr's teacher, tells us at a later time (Lecl. I, p. 217) that there was a basin with papyrus plants opposite the Royal palace at Palermo. He gives a detailed description of the plant and of the Ancient Egyptian procedure of manufacturing writing paper from it.

⁽¹⁾ Papprassingel als Genussmittel. Journ. of the Soc. of Oriental Research . Vol XI (1927) pp. 142-5.

eotton wool, called at the الطوط). Some people believe that the papyrus (fâte الفرف) is different from this bardt which is known in our land, and that it is only one of its kinds. They say that fâfer has a thicker stem than bardt and leaves (khis عند) like those of bardt. Its stem grows twisted and carries leaves like the down of the pine, except that they are less. The bark of its stem is strong, and hard halters and strong ropes are made from it. People use this bark for the transportation of soap and other wares. Writing paper, however, is prepared from taken.

Diosc. (I, 86): πάπυρος (pápyros), i.e. al-bardi is a wellknown plant; writing-paper is made from it.

GALEN VIII (1) (XII, 94): A plant which is not used raw in medicine, but which, if macerated in vinegar and then burnt, heals wounds.

Droso.: Its root is slightly nutritious. The Egyptians chew it, swallow the juice and spit out the rest. Its ashes check malignant ulcers from spreading in the mouth or elsewhere.

ANOTHER AUTHOR: Patients suffering from enlarged splcen are fed on its raw root with evident good result.

COMMENTARY

The cyperacea papyrus (Cyperus Papyrus L.) is one of the oldest plants used in the history of human civilisation. It is a native of the central African rivers. In early times it was frequent on the banks of the Nile in Northern Egypt, and its picture was the symbol of the Lower Country. KRIMER (2) proposed that the plants represented on a proto-historic Egyptian slate palette (circa 4500 B.C.) were papyrus bushes. The hieroglyphic sign of papyrus \(\begin{array}{c} wd \) (i.e. "green") represents some fully grown

⁽⁴⁾ In the text erroneously Galass VI; Inv al-Barrân copied this error from Cháfigi.
(9) Besserbusgen sur Schieferigle von Hierakonpolie. In Aegyptus (Milano, 1926), pp. 169-188.

Idensi (p. 58) and Dâwûd (I, 166) repeat Diosc.'s sayings, but Idensis adds some names in foreign languages, e.g. Syriac pandâfilâ and "Frankish" (Spanish?) quinquefolia حنك فيلي He then gives a long chapter on the medical properties of the root.

Synonyms: Gr.: הצירביף אליי (pentaphyllon), הצירבה (pentapelés, Theophe., Diosc., Galen) and fiveother names (vide suprd); Lat.: quinquefolium (Pliny XXV), quinquefolia herba (Scribonius Largus); Ar.: kaff Maryam בי (Gh., Idrist), zughlat (לפי (Gh., Idrist), zughlat (שבי (Ascherson, Schweine.); thit cl-ard (Gh., Idrist), zughlat (שבי (Dozy II, 197), dhat khamsat-al-avraq or al-asabi or al-atbaq أوالاصلح (Vullers I, 311 a), sangsapoya ("Oneldeke, Loew III, 191); Turk.: besh parmaq otu (Handjéri), besh parmaq otu (Handjéri), besh parmaq otu (Handjéri), besh parmaq otu (Handjéri), five-finger, five-leaved grass; Fr.: quintefeuille, potentille rampante, herbe à cinq feuilles; Germ.: kriechendes Fünftingerkraut, Fingerkraut.

161. Bardî らり, Papyrus (Cyperus Papyrus L). (Lecl. No. 257).

IBN GULGUL: It is al-klus (أغرص , and the Egyptians know it under the name of papyrus (fasir, أغرب), and the Egyptians know it under the name of papyrus (fasir, allow the paper white stem, on which is a large crown (a). White paper is (fol. 22 r.) prepared from this plant (kaghid مُراَّات from Greek رُمَّات khartes). It is called in Cairo quitas أمَراً الله والمهم All references to "burnt paper" in books of medicine always mean the paper prepared from papyrus.

AUTHOR: The papyrus (bardî البخى) is of two kinds, a male kind producing no flower and a female one having a stem and

(1) In use also for other plants.

⁽¹⁾ We thus translate the word quagala 423 of our text (T. and G.) which is missing from European dictionaries. Lexin (XIII, 89) says that quagal is the name for the crown of the Persian King Kin-raw (Chosroes); but there is no doubt that the aigrette of the crown is meant, to which the umbel of the payrun has some likeness, Leclere cronsously tempsia to that the stalk of the plant is covered with fibres.

names in the dictionaries; Eng.: Greek valerian; Fr.; valé riane grecque, polémoine (polémonie) bleu; Germ.: Blaue Himmelsleiter, Jakobsleiter, griechischer Baldrian.

160. Bantāfillûn بنطافلون, Cinquefoil (Potentilla reptans L.). (Lecl. No. 355).

The meaning of its name is "having five leaves" and it is also known by the name "Mary's hand" (1).

Dioso. IV (42): It is also called πενταπετές (pentapetés), πεντάτομον (pentátomon), πενταδάπ-υλον (pentadáktylon), ψευδοσέλινον (pseudosétinon), παλλιπέταλον (kallipétalon) and ξυλόλωτον (xylólôton). It is a plant with thin stalks, about a span long and with leaves like those of mint (na na the leaves for each stalk (petiole) and very rarely more than five. The leaves are dentated on each side like the serration of a saw. It has a flower of yellowish-white colour. It grows in damp places near rivers. The colour of its roots is reddish. It (the root) is long and thicker than the black hellebore. It is useful for many purposes.

GALEN VII (XII, 96): Its root is powerfully desicca'ing without sharpness or acridity.

Dioso: Its decoction, as a wash, is useful against ulcers of the mouth (stomatitis) and toothache, as a gargle against scre throat, and as compresses against scrofula. Its confection is drunk with honey-mead (ὑδοόμελι, hydrómeli) against quartan and tertian fever and against epilepsy. This plant is also used in temples for purification.

COMMENTARY

This plant is undoubtedly the rosacea Potentilla reptans L. (cinquefoil), a European plant which was formerly a medicinal drug (Radix et Herba Pentaphylli sive Quinquefolii majoris). It was reputed for its styptic and stomachic properties.

⁽¹⁾ This Arabic name (kaff Maryum () is applied to several plants having flavore or roots crooked like fingers, e.g. the Jericho-rose, turmeric, cyclamen and agenus castons.

knot-grass (shabatbat شيطاط Polygonum aviculare L.,) or of the water mint (fülhanag al-mā' الله الله Mentha aquatica L.) which is called in Greek καλα: (vθη (kalanninthe) (1). At its end grows a kind of round capitula, containing black seeds. Its root is nearly a cubit long, whitish, and resembles the root of στοούθιον (strathion), i.e. the soap-root (kundus المناسبة), Gypsophila Struthium L.). It grows on mountains and in rough places.

GALEN VIII (XII, 106): It is refining and drying, useful for strangury and sciatica, and is taken internally with vinegar for pains of the spleen. If carried about one's body as an amulet, it is good for stings of scorpions (3).

COMMENTARY

The identification of this plant is uncertain; Tournefort gave the name of Polenonium coeruleum (L.) to the Greek valerian, but Fraas thinks that Dioscurides' description agrees better with Hypericum olympicum L., a kind of St. John's wort. Polenonium was, during the XIXth cent., still in use as a medicinal drug (in Russia). Whether the root which is sold in the Cairo bazaars under the name of 'irq el-'agrab عرف العقرب ("scorpion's root") is identical with it is not certain, even not probable. The identity with "the scorpion's herb" (hashishat al-'agrab حشيشة العقرب) is equally more than doubtful.

SYNONYMS for Polemonium coeruleum L.:

Gr.: πολεμώνιον (polemônion), φιλεταίοιον (philetairion), γιλιοδύναμον (khiliodýnamon, Diose.); Lat.: polemonia (Pliny XXV); Ar.: furûmê فودف (Syria, Bergge. 70), almukhallisa بنبل جيل (Yrâq, Issa), sunbul gabak بنبل جيل (Naficy II, 463a); Pers.: sunbul-i-kûlê سنبل کوهي (Naficy ibid.); Turk.: по

This is, however, another kind of mint, growing on dry and rough sail (Drosc. III, 35), not identical with the water-mint.

^(*) This superstitious application, not in Galen's Greek text, may be an Arabic interpolation.

COMMENTARY

This is the European liliacea Polygonatum oficinale All. (Convallaria Polygonatum L.), called seal-wort or Solomon's seal, on account of the odd form of the scars at the rhizome. This latter was, for a long time, an official drug (Radix Sigilli Sa. lomonis) and is still in popular use, especially in Russia, for rabies, bruises and external inflammations. It is missing from most of the Oriental books on pharmacology. The name filtra (filora?) given by Gh. may be of a Spanish vernacular origin. We were not able to find it in any Spanish botanical work (the actual name being yerba del panadizo).

159. Bûlâmûniyûn برلامونيون, Greek Valerian (Polemonium. coeruleum L.?).

(Lecl. No. 378).

Dioso. IV (8); It is also called φιλεταίφιον (philetairion) and χιλιοδόναμον (chiliodýnamon). It is a plant with short, thin and many-branched twigs, and leaves which are a little longer and larger than those of the rue and which resemble the leaves of

⁽¹⁾ Perhaps another plant is meant, as PLINY records several other names (XXII. and XVII).

^(*) The meaning of all those Persian and Turkish names is "Solomon's seal."

Dâwûn (I, p. 168) follows Gh.'s description, but confuses the plant with 'anam o which is another kind of mistletoe, described by Abu'l-'Abbâs an-Nabârî and IB. (Lecl. No. 1600); it is called 'anam in Syria (Lecl. No. 360). IB. quotes IBN GULGUL who gives some details about the grains of the mistletoe.

The mistletoe does not contain any active principle, only a gelatinous matter. Nevertheless, it was used as a medicinal drug until very recently (Flores et Stipites Loranthi et Visci) (Luerssen II, 924).

SYNONYMS: Ar.: bantûma بتوماً (Gh.), bantûmiya بتوماً (IDRîsî), raq'a fûrisiyya رفت فارسية (Gh.) dharq at-tair فرق الطبر (Gh.); Pers.: same names and shakk (?) شك (IDRîsî); Turk.: pelid aghaji tuzaghi بليد أغاجي توزاغي (HANDJRRI II, 180 a); Eng.: oak-mistletoe; Fr.: gui de chênc; Germ.: Eichenmistel, europäische Riemenblume.

158. Bulûghûnâtun بلوغوناطن, Seal-wort (Polygonatum officinale All.).

(LECL, No. 379, ballaghandtun برلوغوناطن).

Polygonaton or "many knees," known also as al fildra الفياد المالية.

Diosc. IV (6): It is a dance (thamnos, shrub) and grows on mountains. It is more than a cubit high and its leaves are like-laurel-leaves except that they are broader and smoother. They taste a little like quince or pomegranates with some astringency. At the origin of each leaf there are numerous white flowers branching off from one place. It has a white long root with many knots, covered with down, of a very heavy smell and as thick as a finger. It removes freckles when used as a compress.

GALEN VIII (XII, 106): Its faculty and taste are a combination of astringency and acridity, and it is disgusting and nauseating beyond any description. For this reason it is not useful for any great purpose. Some people, however, use its root in the form of compresses on the sites of contusions and for removing freckles. knotty green branches (fol. 21 v.), with green leaves which are shorter but broader and harder than olive leaves. It has a red and viscous fruit with seeds inside. He who wishes to grow it has to split the trunk of an olive or an oak tree, or any similar tree, and to place two seeds into the hollow space of the wood, taking care to do that in the beginning of spring. In this manner it will grow.

(The juice of) its leaves when drunk with Armenian clay helps the union of broken bones. Its decoction prevents cough. Its taste is astringent and sometimes bitter.

COMMENTARY

We think that Leglerc is right when he identifies this plant with the oak-mistletoe (Loranthus europaeus L.) which is different to the white mistletoe (Viscum album L.) (1). The name bantuma is supposed by Idrass to be Greek, but it is missing from the ancient treatises. The Syriac name is found under the form of rakuma מולים ווערכים היותרים ווערכים ווערכ

Among the Oriental authors Ideas is the most interesting; we partly translate his paragraph on the mistletoe (p. 59):
"bantamiya أَدِنُ الْعَارِيّ Bartamiya الْعَارِيّ is Greek, in Arabic dharq at tair and in Persian shakk (?). It grows in Sicily, on the volcano, on the pine-trees as an olive-green plant. Dioscurides left it out and did not mention it (2). It grows also on the trunks of olive and oak trees as short, green branches of a greenness that resembles the yellowishness of olive leaves. It does not blossom nor does it produce any fruit" (3). Then follow the medical properties of the plant.

pear-shaped berries.

⁽¹⁾ Issa confuses these two locanthaceae; Viecum album is in Arabic dibg 英岛and its description follows in a separate chapter.

⁽⁷⁾ This again is a proof that it is not identical with IE65 (iz6s), visoum, di6s.
(9) This is an erroneous statement; the flowers of Lorastinus europ, are very small and yellow; this fruits are described by 6th himself (see above, p. 316); thing are yellow

leaves. It is common in gardens in warm climates. In India it is in flower during the whole year (1), but it does not seem to be medically used there. The name of 'urf ad-dik ("cock's comb") is, however, applied to Amaranthus caudatus L., the beautiful purple-love-lies-bleeding of the gardens (Lobw I, 342, Issa, p. 12, 1). The amaranthaceae are not any longer medicinally used. Schlimmer (p. 28) alone mentions Amaranthi cruenti Flores.

The name bustân-abrûz is the Arabic form of the Persian word bustân-âfrûz or bustân-afrûz. Dâwûd (I, 148) describes its medicinal properties, and says that its flower is like that of khûsê spê (Cheiranthus Cheiri L, wall-flower); this is an error.

Synonyms: Ar.: bustân-abrûz عرف الديا بستان أبروز (الديم بستان أبروز (الديم المسلمانية بستان أبروز (الافدالية بستان) المسلمانية بستان المورد (العدم المسلمانية المسل

157. Bantûma نحومة, Mistletoe (Loranthus europaeus (Jacq. L.).

(Lecl. No. 360).

This plant is known in our land under this name, and is also known as ar-rag'a al-fârisiyya الرقعة الفارسة ("Persian shift") and dharq at-tair أرق العلير "bird's dung") (5); it is also called al-kharaf-tân الحرفطان and in Syriac mârâqûnâ

It is a plant which grows on olive trees and comes out of the tree itself. It also grows on pear-trees. It has long and:

⁽¹⁾ W. RONDUBERT, Flora Indica, Calcutta, 1874, p. 663.

^(*) This is erroneous according to DAWOD, and is indeed a name of hasilio (ISSA).

⁽a.4) These are terms meaning "oock's comb."

⁽⁵⁾ The mistletoe seeds are indeed spread out by hird's dung.

have done the same: Rumex hydrolapathum (Sprengel), Inula britannica (Dalechamp and Fee), Inula odorata (Fraas), Inula conyzoides D. C. (Dragend., p. 666) and so on. Sickens. (Arm p. 32) forbears any attempt at identification.

158. Bustân Abrûz بستان أبعد , Amaranth (Amaranthus tricolor L. ?).

(Lecl. No. 283).

Bustan afrae ايستان أفردز is a Persian word meaning "illuminating the garden;" it is called in Arabic 'urf ad-dik عرف الدبك ("cook's comb").

HUNAIN and AR-Razi: It is the Britannica.

IBN-GULGUL: It is a plant which reaches the height of over a cubit. It has long twigs on which grow leaves like those of the curving cucumber (qithà' المَّاءُ), and oblong. At the ends of the twigs are clusters (washà' المَّاءُ) of flowers of purple colour and of beautiful aspect, but of no aromatic smell. The first person who knew this remedy in Andalusia was Yônus of Harran لمالة المُلاقات (1). When its juice, gained by expression, is drunk, it is useful against the poison called axóvirov (akóniton), that is the napel (3). see Simoner, Glosario p. 395.

Al-Magost: The flowers of amaranth, when taken with oxymel and juleb, are soothing to the heat of the stomach.

COMMENTARY

This plant is, according to Dragend. (p. 200), the beautiful Amaranthus tricolor L. which has green, yellow and fiery-red

⁽¹⁾ Young was a physicism who emigrated from his town, Harrin J. (Northern Messenghamia) to Spain where he settled down in Cordova, under the raign of Μπελανκια I, son of 'Asn-λα-Rankin II, (reigned 828-886 a.b.). He had a great reputation for his knowledge of drugs. See IAU II, p. 43; Loclare, Histoire de la médecine arabe, vol. I, p. 42; foll.

^(*) In Arabio as nabell الزال, mis-spelt in nearly all the MSS, and editions of Gh. and IB, (bandl Jir, add Jir, etc.). Since IB, says it is a Spanish word, it must be nopele (Aconitum Napilles L., monk's hood, wolf's bane).

For Salix rosmarinifolia L. in European languages: Eng.: rosemary willow; Fr.: saule à feuilles de romarin; Germ.: rosmarinblüttrige Weide.

155. Bartânîqâ برطانیةی. Britannica (undetermined). (Lecs. No. 258).

It is said to be the sweet bartiqa رطيقة

HUNAIN: It is the plant called bustân abrûz بِسَان ابروز (amarauth).

Diosc. IV (2): It is an annual plant with leaves like those of sorrel (hummâd barrî حاضريء), but darker and covered with down. It is astringent. Its stalk is not long and its root is thin and short. It is good for ulcers of the mouth and swelling of the tonsils.

GALEN VI (XI, 854); It is astringent and cicatrises wounds.

COMMENTARY

The description of this plant by Dioscurides is too vague to allow an identification of βρεταννική (bretannike) of which bartánaga (i.e., (iii)). (iii) (ii

⁽¹⁾ All this according to Berendes (p. 367).

manuscript bûbkar ابدير ; in the dialect of Sind (Lower Indus Valley) it is stris بدين ; it is al-bahrama. Abû Hanîpa said: Ar-ranî is one of the mountain-trees; it is the Bactrian willow (al-khilâî al-bakhî اللاف البلني). Its leaves retreat toward the branches during the night and spread out during the day. It is a Persian tree."

Then follow the words reproduced by Gh.

IBN GAZLA and IDRIST do not mention bahramag.

IB. (Lect. I, p. 263) (1) quotes a detailed description by AT-TAMMM (d. in Spain, XIth cent. A.D.) who says that the tree is as high as a pomegranate tree, and has a pink flower and peach-like smell. This would agree with Salix resmarinifolia L.

SEIDEL (Mechithar, p. 173) who abstracted from Armenian and Persian sources gave more Persian names of the plant which he identified with Salix Caprea L.

There is no need to refer to (4h.'s identification of the p'ant with clematis; it is simply erroneous.

⁽¹⁾ This paragraph is missing in the Bülâq Arabic edition, but is complete in MEYREROS'S MS. of IB.'s work.

^(*) Moreover he quotes bid - Majnan المبيد عنها. but this is the Persian name for the weeping willow (Saliz babylonics L.).

zayân Libi (No. 1506), and it is here that he quotes Gh.'s and Droso.'s sayings. Indeed several of the 200 kinds or more of willows are creepers, (sallows) and the frequency of their bastardism baffles even modern botanists. But this is no reason for confusing a willow with a climbing ranunculaces.

IBN Sîda (Mukhassass XI, p. 143 1, 10 foll.), who quotes Abû Hanîra, enumerates bahrânag among the trees, especially those growing on mountains. See also below, the quotation by Rîbûnî.

IBN Sînâ (I, 272) mentions bahrâmag (¹) only as a fragrant plant, but later on, according to Dymock (III, 365), treats this plant separately under the title of willow-flowers (zahr khilâf (בֹּשִׁיבׁיׁבֹּשׁ). Dymock identifies it with a Persian willow, Salix Caprea L. which is known under the name of bîd-i-balkhi بيد بلغني). Bactrian willow), its flower as bîd-mishk بيد المثانية and its gum as bîd angubîn بيد المثانية (" willow-honey"). The Persian settlers in India use the water (maʾal-khilâf ماهُ اللهُ اللهُ

Guicues (3) identifies bahramag with Salix rosmarinifolia L., a bastard variation of the European Salix repens L. and Salix viminalis L. But the name bahramag may be in use for several of the other Central Asiatic kinds of willow.

Among the Oriental authors, Bîrûnî gives the following interesting paragraph:—

'Bahramag.' The author of the 'Famous Subjects' (2) said: It is ar-ranf الرف , i.e. bahram-i-jangli الرف., (Persian 'the wild willow') and therefore some people think that it is the wild safflower ('usfur barri عمفر بند). AL-Fazari said: Ar-ranf is in Persian barker عمد (barang بريانيا), and accoding to another

⁽¹⁾ It is the Arabin form of Persian bahrdma 4 17.

 ^(*) Le livre de l'art du traitement de Najm ed-Dyn Makenoud. Beyrouth, 1903, p. 12.
 (*) SARIR AL-MASHARIB ماحب المناهر, an unknown author on natural history, often quoted by Bisonf.

is dentated and the colour of the hairs (stamina) of its blossoms is red, the other has the hairs of its blossoms green, while both have a fragrant smell.

Author: This is the wild jasmine (yasimin barrî الماسية). having larger leaves than the jasmine, square twigs of purplish colour which spread out in long ropes on the soil and climb on trees. It has a white blossom, yellower than jasmine, formed in clusters with lashes (stamina) in the interior and of a very beautiful smell. The blossoms open in the summer time. It has roots. as thick as the little finger. There is another kind with very fine leaves and thin twigs as those of the esparto-grass (halfā' المالة). Both kinds are of very sharp taste and ulcerate the tongue, and for this reason common people call it the "fire herb" ('ushbat annār المالة) or "the cold fire" (annār al-bārīda المالة). The root of this plant is used instead of fumitory (shailarag fine), Fumaria officinalis L.) or hellebore (kharbaq المالة small kind is the one which Dioscurides described and called nancts (klēmatis).

Drosc. VI (180): Clematis is a plant which shoots out branches, inclined to be red and thin. They are very sharp, ulcerating the tongue; it winds round trees like μΛαχος (milakhos(1)). The faculty of its leaves is burning and hot in the first stage of the fourth degree.

Diosc.: Its fruit, drunk with water and ὁδοόμελι (hydró-meli, honey mead), purges phlegm and bile.

COMMENTARY

In this chapter 6th. was very much confused, and IB. was right in not following him. IB. treats bahramag in Chapter 344, and under the heading of balkhiya in chapter 369. He treats the clematis in a separate chapter under the heading of

⁽¹⁾ This is the genetive form of µiλa; (milax), the rough hindweed, Smilax aspera L.

IBN GAZLA says that the best violets for medicinal use in his time (XIth cent.) were the pale blue ones, which came from the town of Rustâq الرَّحْتُ in the Province of Arrajân الرَّحْتُ اللهِ (Western Persia). He ascribes to it a sedative effect and a power of reduction of swellings and inflammations. The cough soothing effect of the confection (banafsag murabba المنفسج ممرك was well known to him.

IDERST (p. 64) mentions that the wild violet, as well as the garden violet, were in medicinal use.

IB. (I, 114) gives many extracts from old authors about the medicinal uses of violets.

Dawto (I, 165) confirms this and adds that the root of iris is a substitute for violet.

SYNONYMS: Gr.: τον μελαν (son mélan) ιωνία μέλαινα (sônsa mélaina, ΤΗΕΟΡΗΚ.), τον (son, Diosc., Galen); Lat.: ion, viola (Pliny); Ar.: banafsag بنفشه ; Pers.: banafsha بنفشه (Vullers), kāgāsh و (Vullers, Handjíri, Nafioy); Turk.: benefshe (Anni); menekshe (Anni); menekshe (Samy); Eng.: violet, sweet violet; Fr.: violette; Germ.: Veilchen, Märzveilchen; Copt.: jan.

154. Bahramag Jr., Bactrian Willow, (Salix Caprea L?). (LECL. Nos. 344 and 369).

ABÛ HANÎRA: It is ar-ranf الزنف (3), i.e. the Bactrian willow (al-khilâf al-balkhî أللخي البلخي). There are two kinds of it. One

⁽¹⁾ This is according to Bindut who also mentions the Syriac mutilation of the Persian name manushkht binin (see Brookers, 495 b).

^(*) STHINGASS spells kákásk.

⁽³⁾ Our MS. T. reads as ris, G. ash-sharis, Lucus as restational. The spelling adopted here is the correct one seconding to al Asme's Book on Plants and Trees كَابِ النّاتِ الرّاحيدين (Cd. Aug. HAFZKER, Boyrouth, 1898, p. 44).

153. Banafsag بنفسج, Violet (Viola odorata L.). (Leol. No. 353).

Drosc. IV (121) (1): (fol. 21 r.) Tov (ion). Its leaves are smaller than those of x:0066 (kissôs, ivy), thinner and much darker; yet they are not unlike them.

IBN AL-GAZZÂR: They are like the leaves of mallow (khubá: اخلاف), and its twigs grow prostrate on the soil.

Diosc.: Its leaves are smaller than those of Hibiscus (khubais) نائخ (الله); (الله); (الله); (الله) its stalk comes forth from a root carrying a purple (-violet) flower of a very pleasant smell. It grows in shady and rough places. (The infusion of) its flower in water, when drunk, is useful for quinsy (khunnâq نائخ) and epilepsy (sara ﴿) of children, and its leaves, as compresses, are cooling.

GALEN VI (XI, 889): The nature of its leaves is watery and a little cold.

COMMENTARY

The plant in question is the violet, Viola odorata L. called by Theophe. τον μελαν (ion melan) or ιωνία μελαινα (iônta mélaina) black violet (³). Violet was considered as a holy plant amongst different nations and served in Ancient Greece in the cult of the goddess Persephone. Its medicinal use was very widespread and Flores Violae are still an official drug used in syrups for cough. The colouring matter of the flowers is easily turned red by acids and green by alkalies. The active perfume (ionon) is now systematically prepared from citral. The active medical principle is a kind of emetine; it is more easily extracted from the creeping root of the plant.

⁽¹⁾ In both MSS. T. and G. III; this is a copyist's error.

^(*) This passage is not in Drosc's original text.

^{(&}quot;) His Tov Acuxóv (ion leukón), "white violet," is the stock, Matthiala incons. Br. (Cruciferas).

The word bahâr Jr. designates in Persian "spring," but the name of the plant is more likely to be derived from the Arabic verb bahara Jr., "to shine, to fascinate."

IBN GAZLA and Bîrûnî wrote that the leaves of bahar are partly red.

IDERST (p. 57) describes under the name of bahâr several different compositae, some of which have a red capitulum and yellow petals, and others a yellow capitulum and white petals.

DUCROS (p. 26), twenty years ago, determined the drug which was sold under the name of behår in the Cairo bazaars as Anthemis. tinctoria L, coming from Europe. It was sold with long stalks and used for the treatment of wounds as well as for dyeing.

Synonyms: Gr.: βούφθαλμον (būphtalmon), κάχλας (kákhlas, Diosc.); Lat.: buphthalmos (Pliny); Ar.: bahár ארי, ughuwān ashur ישי القط وعن الحرب و "ain al-birg" أقدوان اصفر "ain al-birg" أقدوان اصفر "ain al-hirg" בי القط وعن الحرب و "cat's eye," Modern Egypt), khubz al-ghurāb ("cat's eye," Modern Egypt), cat aghlāb المرابق (Syria, Bergger), arbayān المرابق ("Odzy), 'ain aghlāb أو ("Syria, Loen I, 370), ribyān أو إلى المرابق ("Odzy), 'ain aghlāb عن الحرابة ("Syria, Loen I, 370), ribyān أو إلى المرابق ("Modern Egypt, Sohweine), dhu'l-ghasi فو المنطق (Modern Egypt, Sohweine), 'ain el-hagal عن الحرابة المرابق ("Syria IB.); Berbere: amellāl المرابق ("Bhas); Pers.: bābāna (gul) -- gaw-chashm الموال ذو كا كارته معال كالمرابق ("Marioy); Turk.: sīghār gözii fūdānā ("Antioy); Camy, p. 355), sīghār gözii fūdānā ("Handjēri I, 310). Egypt: "كالله "Rapyrus Col: (I, 1.1. Verso).

In European languages, for Anthemis arvensis: Eng.: dog's camomile, buphthalmum; Fr.: buphtalme; Germ.: Acker-Hundskamille.

For Chrysanthemum coronarium: Eng.: crown-daisy; Fr.: marguérite des champs; Germ.: gekrönte Wucherblume, gelbe Margorite. IBN Sin a: It is gano-chashm أوجثم (1). Its flower is yellowcoloured, the centre being red and more developed than that of the camomile.

COMMENTARY

The identity of buphthalmon-bahdr has not been exactly fixed, the number of camomile-like compositae with yellow petals being very considerable. It is probable that the modern buphthalmondoes not correspond to that of the Ancients. The different kinds of these plants are probably the following:—

- Anthemis arvensis L. (dog's fennel, Issa), a common weed.
 Europe.
- Chrysanthemum coronarium L. (crown daisy), common in South Europe and on the coasts of North Africa. It was probably cultivated in Ancient Egyptian gardens (Keimer, p. 10 foll.) as it was found in crowns and garlands of tombs from Thebes, dating from the XVIIIth to the XXVth dynasties (1500 to 500 B.C.).
- 3. Anacyclus valentinus L. (Kosteletzky), a native of the same lands.
 - 4. Anacyclus radiatus Lois or Anthemis valentina (Sprengel).
 - 5. Chrysanthemum segetum L. (TSCHIRCH I, 562).

In North Africa behår, in Spain albihar, is the actual namefor 'ain al-baqar—buphthalmon, but more frequently applied tothe amaryllidea Narcissus Tazzetta L. (primrose-peerless); this isaccording to Loew I, p. 370.

IBN AL-'AWWAM (II, p. 264) writes about the cultivation of bahâr, but calls it white. Thus it cannot be our yellow-petalled plant. As to the red-coloured buphthalmon of IBN SYNA, it must be Anacyclus officinarum Hayn. or something like it.

⁽¹⁾ Persian "ox's eye,"

European names for Anthemis nobilis:

Eng.: (Roman) camomile, camamel; Fr.: camomille romaine; Germ.: römische Kamille; Span.: manzanilla romana.

For Matricaria Chamomilla:

Eng.: wild camomile; Fr.: camomile commune; Germ.: Mutterkamille, echte Kamille; Span.: magarzuela, amargaza,

152. Bahâr Jr., Dog's Camomile, Dog's Fennel (Anthemis arvensis L.) or Crown Daisy (Chrysanthemum coronarium L.). (Lecl. No. 365).

It is the yellow camomile (ughunda asfar الفحوان اصفر). Some people call it the "raven's bread" (khubz al-ghundb زخبر الغراب); albahar البران is known by the laity as "narcissus" (nargis البراد).

Diosc. III (139): Βούρθαλμον (būphthalmon) or "cow's eye." It is a plant with a tender stem, leaves like those of the fennel and yellow flowers which are larger than those of the camomile, resembling eyes. It grows on heaps of manure. It resolves phlegmatic swellings when used with καρώνα (kɨπöte, wax plaster). If drunk by a jaundiced person in the bath-room after coming out of the hot tub, the colour of his skin is improved because he vomits water (1).

GALEN VI (XI, 852): Its flowers are bigger than that of camomile and more powerfully resolvent.

⁽⁴⁾ The last words are missing from Drosc.'s text.

Egypt, and that it was introduced into Andalusia (probably by the Arabs) and cultivated from Cadiz up to Toledo. In the author's time (about 1200 A.D.) it ceased to be cultivated in Spain, but grew wild.

B. (IBN AL-BATTÂB) himself adds that the plant described by Diosc. was called in Egypt karkâsh אַבָּילּי , in North Africa rigl ad-dugâg רביל , in Spain maqarja אַבִּילִי (i.e. Spanish magarza (¹)) and by the Arabs uqhuwân (²). This kind was no longer in use at IB.'s time (about 1230 A.D.); the one used was called bâbânag." This latter is, according to Sickenb. (Arzn., p. 26) mostly Achillea fragrantissima Sz. Bp. (lavendercotton).

The drug which is sold to-day in the bazaars of Cairo is of European origin and seems to be *Matricaria Chamomilla L.*. It is called shih-babunig شعة بالعام (3). Ducros omits the mention of this plant,

Dîwro (I, p. 134) says that the plant is called in Syria bûlbîsûn (old Aramaic name?) and grows everywhere, even on walls and roofs.

IEN AL-'Awwâm (II, p. 309) speaks in detail of the cultivation of the camomile in medieval Spain.

Flores Chamomillae romanae or Anthemidis (from Anthemis) and Chamomilla vulgaris are still officinal drugs in most of the pharmacopoeas. The oil, extract, infusion and water of camomile are much in use.

Synonyme: Gr.: ἄνθεμον (ánthemon, Theoph.), ἄνθεμος (ánthemis, Diosc., Galen), λευχάνθεμον (leukánthemon), ἡράνθεμον (éránthemon), μηλάνθεμον (melánthemon), χαμαίμηλον (khamasmélon), χρυσοχαλλία (khrysokallia), χαλλία (kallia) (all Diosc.); Lat.: anthemis, chamaemelon (Pliny); Ar.: bábúnag £yl. (also written

⁽¹⁾ Magarza is the camomile, magarzuela is dog's fennel.

⁽²⁾ See above, paragraph 48 (p. 136 foll.).

^(*) M. MEYERIOF, Der Bazer der Drogen und Wohlgerüche in Kairo, Arch f. Wirtschaftsforschung im Orient (Weirlar, 1918) p. 197, No. 268.

GALEN (XI, 833): It is heating in the first degree, laxative, resolvent and dilating to the pores.

COMMENTARY

This paragraph is very poor in information, particularly when compared with the corresponding chapter of IB. who quotes seven authors and gives records of his own and of his master's, ABU'L 'ABBÂS', experience. It is possible that BH. has very much abridged the information of Gh. on camomile.

The plant concerned is likely to be the Roman chamomile Anthemis nobilis L., but of the three kinds mentioned by Diosc. perhaps the white one is the wild camomile (Matricaria Chamomilla L.), the yellow one Anthemis tinctoria L. and the purple one Anacyclus officinarum Hayn. (Berender, p. 353). We suppose that both Greeks and Muslims could not distinguish exactly between the many kinds of compositae Anthemis and Matricaria growing in the Near East. (See the detailed paragraph of Loew I, 375-8, and Tschrich II, 977). The active principle of the plant is a dark-blue (1) volatile oil, besides a bitter glucoside (anthemic acid), tannates, etc.

The Arabic name babûnag is derived from Persian babûna. الماينة. This is said to be called after the name of a Persian village, Babûnah in the 'Irâq 'Arabî عراق عرب where the plant is particularly abundant (Dymook II, 275).

Among all the authors who wrote in Arabic, only three Hispano-Moorish physicians give us the most interesting records.

Identify (p. 48) gives the Greek name anthemis and then the "Istin" (Spanish) name masqala, to be read manzana (apple), from the apple-like smell of some kinds of the plant, and follows with a great number of medicinal uses of the camomile.

Abu'l 'Arrâs an-Nabârî, IB.'s teacher, says (2) that the small camomile (Matricaria?) was frequent in Tunisia, Barka and

⁽¹⁾ When freshly distilled; it becomes greenish or brownish on keeping.

^(*) Cairo edition of IB. I, p. 73.

it erroneously with quisum (southernwood, Artemisia abretanum L.). The corresponding paragraphs of Bîrûnî and Idrisî are missing from the MSS.

SYNONYMS: Gr.: عربي (artemisia); Lat.: same name; Ar.: suwaid: حربي (Gh.), habaq ar-rā'i حربي (Issa), bilingāsif رئياسة (Gh.), biringāsif رئياسة (Gh.), biringāsif رئياسة (Bergge.); Pers.: birinjāsp رئياسة, bilinjasp برئياسة, buyā mādarān (Vullers I, 227, Naficy I, 96); Turk: baranjāsifiya المنابعة (Avni, p. 56) (1); Eng.: mugwort, motherwort, dungwort, wegwood; Fr.: armoise vulgaire, herbe de Saint Jean, couronne de Saint Jean; Germ.: gemeiner Beifuss.

151. Båbûnag غير , Roman Chamomile (Anthemis nobilis .L.) and other kinds.

(LECL. No. 220).

Drosc. III (137): "Ανθιμις (ánthemis); it is also called λιυχάνθιμον (leukánthemon), ηράνθιμον (éránthemon." blooming in the spring-time"), χαμαίμηλον (khamaimelon, "apple of the earth") μηλάνθιμον (melánthemon, "apple-flower"), χρυσόχαλλις (khrysókallis, "the golden beauty") and χαλλις (kallis) (*). It is of three kinds, the difference between which being only in the colour of the flowers. It has stalks of one cubit (*) or less; on them there are thin twigs, small, thin leaves and small round capitula, in the interior of some of which there are white, and in others golden, flowers. The external petals are round the capitula of white, yellow or purple colour and about the size of the flowers of rue. It grows in wild soil near roads and is plucked and collected in spring-time. The faculty of this plant, its roots and flowers, is heating and refining; the purple kind is more powerful in crushing stones and the white and yellow more diuretic.

⁽²⁾ Handyers (I, 146) gives the name sardifes عَلَيْهُ but this is the name of Feronics officinalis.

^(*) The new text of Duest reads προσοπαλλία (hisysochallia) and παλλία (hallia).
(*) Duest reads: "a span; "Gh's text is due to an old copyist's error.

kind with shorter branches (1), and larger leaves, than the others, with small and tiny white flowers, of oppressive smell, and which blossom in summer. Some people give the name of artemisia to a plant with thin twigs and a smooth simple stalk which is very small and full of wax-coloured small flowers that renew their growth once a year.

GALEN VI (3) (XI, 839-40): The name artemisia is given totwo herbs which are a little heating and drying and which are useful for ulcers of the uterus.

DIOSC.: All these kinds are heating and refining, and vaginal. washings of their decoctions are emmenagogue and expel the placenta and the embryo.

Another Author: The yellow-flowered kind is more efficacious than the white (*).

COMMENTARY

The plant in question is mostly the composite Artemisia vulgaris L., mugwort; the other two kinds mentioned by Dioscurides have been determined as Artemisia arborescens L. and Artemisia campestris L. (Berendes, p. 340). The kind with a straight stem is known to be Artemisia spicata Jacq, growing on the mountains of Greece (Sprendel). Artemisia vulgaris and maritima are very common weeds. The root (Radix Artemisiae) was much in use as a popular remedy and is still a medicinal drug. It contains an aromatic oil, resin and inulin.

The name bilingûsif المتحاسف is derived from Persian birinjûsp.

Both the name and the plant are missing from Abû
Mansûr's Persian pharmacological treatise. Ibn Sîna (I, 267)
and Ibn Gazla call the plant biringûsf, and the latter identifies

⁽more luxuriant) which corresponds to the text of Drosc.

^(*) This quotation is missing from T. and G.

⁽³⁾ Following, IB. gives a short extract from Gh. on the medicinal use of artemisia. BH, left this out in the abridged edition.

COMMENTARY

This is the common composita Tussilago Farfara L., coltsfoot (1) or colts foot, abundant in Europe, much used since the earliest times against cough and asthma. Its flowers and leaves are still official drugs in the Belgian, German, Danish and other pharmacopoeas (Ungula caballina, Flores Tussilaginis, Folia Farfarae, Species pectorales, LUERSSEN II, 1128). The flowers are one of the quatre flews of the French pharmacopoea. No active constituent of the drug is known.

Synonyms: Gr.: βήχιον (békhion) (Hippocrates, Dioso, Galen), πήχιον (pékhion), πίθιον (pithion), πετρώνιον (petrônion) (Dioso.), χαμαιλεύκη (? khamaileukê, Galen); Let.: bechion, tuseilago, farfarus (Pliny); Ar.: bîkhiyûn בُوْبُونُ, fikhiyûn مُسْمَةُ السَّالِي (Gh.), dûsat al-himûr مُسْمَةُ السَّالِي (Syria, Beegge.); Pors.: same names; Turk.; dere tabûni دُوهُ طَالِي ("camel's footstep," Avni), öksürük otu ("cough-herb," Handjéri, Samy); Eng.: colt's footses's foot; Fr.: tussilage, pas d'âne, taconnet, herbe de Saint Quirin; Germ.: Gemeiner Hustatich, Märzblume.

المنجاسف 150, Bilingâsif بنجاسف, Mugwort (Artemisia vulgaris L.). (Legg. No. 255).

It is also called biringasif برنجاسف, which is as-survaild السويلا

Diosc. III (113): 'Αρτεμισία (artemisia), the flower of mugwort. It grows mostly on the shores. It is an annual plant, reaching the height of a θάμνος (thamnos, shrub), resembling wormwood; but its leaves are larger than those of wormwood and have a moisture which sticks to the hand. There is another

⁽¹⁾ This name, as the names in Persian, Turkish, French and German, is derived from the appearance of the leaves which have the form of the footprint of a beast of burden.

SYNONYMS: Gr.: ἀπαρίνη (αρανίπε), ἀμπελόναρπος (ampeló-karpos), ὀιφαλόκαρπος (omphalókarpos), φιλάνθρωπος (philán-thrôpos) Diosc.; Lat.: lappa, aparine (Virgil, Pliny XXVII): Ar.: misfât ar-rê^{*}ε المعناة الراحي (Maghrib, vadúð), muhibb as-sibyân, muhibb an-nâs (Maghrib, vadúð) عماة (Gh.), fuuva barrâ-miyya أوانية (IB.), dibbaika المناقبة (Palestine, Loew III, 269), hashíshat al-afā'ε مناقبة (Gh.), palasge (Vullers), rashðag المناقبة (Avni), choban sözgeyi عوان سوزكاي (Samy), choban sözgeyi عوان سوزكاي (Samy), choban sözgyi وان سوزكاي (Samy); Eng.: bed-straw, catch-weed, goose-grass, cleaveurs; Fr.: aparine, grateron, rièble, gaillet accrochant; Germ.: Wandlabkraut, Kleblabkraut, kletterndes, Labkraut.

149. Bîkhiyûn بيخبون , Coltsfoot (Tussilago farfara L.). (LECL. No. 1707, fikhiyûn نيخبون).

Brkkion, " cough-(allaying) herb " (hashishat as-su'dl السعال)

Drosc. III (112): It is called xtôuov (pithion), xfxuov (pêchion) and xerqúviov (petrônion). Its leaves are like those of xtogés (kissés, ivy) but larger, growing six or seven from the same root, their colour being at the lower and whitish and at the upper greenish. They are polygonal; the length of their stalks is a span. In spring there appear on it yellow flowers; but flowers and stalks fall off quickly; that is why people think that it has neither (fol. 20 v.) flowers nor stalks. It has a thin root, and it grows in meadows and in watered places. Compresses of its leaves mixed with honey are useful for hot swellings, (phlegmons), and when dried and used as inhalations, it eases cough and dyspnoca. Its decoction in wine expels dead embryos.

(FALEN VI (XI, 850 foll.): It is called by this name on account of its utility for cough. It is moderately sharp and acrid, and therefore it opens abscesses (dubailát :-).

IBN Sînâ (1): When fresh it heals ulcerating scabies.

⁽¹⁾ Under the name of sw'dli ... (Baldq edition I, p. 386).

Diosc. III (90) 'Απαρίνη (aparine), also called ὁμορλής καργος (omphalókarpos) and "lover of mankind." It is a plant with numerous long, quadrangular and rough branches on which grow leaves in a circle, distant one from the other, like the leaves of madder (funna *j*, Rubia tinctorum L.). Its flowers are white and its grains are hard, round and with a depression in the middle like a navel. This plant sticks to the clothes, and it is used by shepherds as a filter to strain hairs from milk. The juice of its fruits and leaves, drunk with wine, is useful for the bite of tarantulas and vipers; and as compresses with grease, it resolves scrofulas.

 G_{ALEN} VI (XI, 834): It is moderately laxative, drying and refining.

COMMENTARY

This plant is the rubiacca Galium Aparine L., called bedstraw, goose-grass, etc. It is a common weed in Europe, North-Africa, Asia and even America (probably imported). Its fresh juice, containing rubichloric acid, was used in Europe for ulcers, skin diseases and cancer (Dragend., p. 639), also for gout and as a diuretic (Bottoa, p. 473).

The orthography and pronunciation of the name are uncertain. Our better MS. T. spells balaskant or balsakant the less trustworthy G. balaskhant the Bûlâq edition and LECLEEC'S translation of IB. read balasks. MEYERHOF'S good and old handwritten copy of IB., however, equally reads balaskant, and for this reason we adopted this spelling. The origin of the word is unknown. We thought at first that it might be Greek (1), but the name is found in VULLERS' Persian dictionary (I, p. 370 b) as palasgi. The name is missing from all the pharmacological treatises earlier than Gh.

⁽¹⁾ Perhaps πολυσχοίνη (polyakhoinė) i.e. 4 having muny cords because the plantie a creeper?

marrube noire; Germ.: Schwarze Ballote, Schwarze Gottvergess, Schwarzer Andorn.

147. Bûlûqnîmûn بولوفنيمون, Polyonemon (Zizyphora capitata L. ?).

(LECL. No. 380).

Drosc. III (94): It is a small shrub used as fuel. Its leaves are like those of $i_7i_7\alpha_{95}$ (origanos, marjoram) and its fruit (1) like those of $\gamma_{127}\alpha_{95}$ (olikhon, pennyroyal). It has no umbel but small capitula of aromatic and strong small. If used for compresses it closes wounds. The dressing must not be taken off before the fifth day.

GALEN VIII (XII, 107): It is heating and drying in the second, and heals the site of contusions.

COMMENTARY

The identity of polyknemon has not been established with any certainty. It has been taken for Mentha arvensis, Prunella vulgaris or a kind of Polygonum. Fraas and Little proposed the Greek labiata Zizyphora capitata L. which reaches the height of a shrub (Berendes, p. 328, Leci I, 288). There are no Oriental names for this plant.

148. Balaskanî أسكن, Cleavers, Bed-Straw (Galium Aparine L.).

(LECL. No. 349).

It is called mistat ar-ra's مصفاة الراحى (" the shepherd's litter"), al-wadid الودود (" the affectionate") and muhibb as-sibyan عب الصيان (" lover of children") (3).

^(*) The original text of Drosc reads instead of "fruit " καυλός, stalk. Lecu (I, 288) proposes a modification of the Arabie text.

⁽⁷⁾ This latter name seems to have been translated from φιλάνθρουκος (philánthropos), use of the Greek names of the plant. These names refer to the burdock-like stackiness of the fruit.

146. Balûtâ باوطی, Black Hore-hound (Ballota Nigra L.). (Lecl. No. 431).

It is also called al-marw al-barri المروالين and raihān barrs ديمان برى (wild basil").

Drose. III (103): βαλλώτη (ballóté); it is also called μελαμπράσιον (melamprásion). It is a plant with black quadrangular twigs, covered with down and originating from one large root. Its leaves resemble those of πράσιον (prásion, hore-hound) except that they are bigger, rounder and widely separated from one another like the leaves of μελισσόφυλλον (melissóphyllon. balm). They are of fetid odour, and therefore some people call it μελισσόφυλλον (1). The flowers are in a circle round the twigs. Compresses of its leaves mixed with salt are useful for the bite of rabid dogs.

GALEN VI (8): Its faculty is like that of πράσιον (prásion, bore-hound), but it is much inferior to it.

COMMENTABLE

This is the black hore-hound, the labiata Ballota nigra L., a common weed growing on rubbish in Europe. It is still an officinal drug (Herba Ballotae) in several pharmacopæas, and was formerly used as an antidote for poisons. It is a relative of the common hore-hound (Marrubium). The Greek name is Arabicised and pronounced ballots or ballots.

Synonyms: Gr.: βαλλώτη (ballôtê), μελαμπράσιον (melamprâsion); Lat.: porrum nigrum (Pliny XXVII); Ar.: ballûtê, balûtê بلوطی, frâsiyûn aswad براسون اسود (Berggern), sindiyûn al-ard تندانی اسود (Nation); Peis.: gandanâyî aswad شاه (Nation); Turk.: qara yer prâsasî (Handiêri) or prakusasî (Avni) قره بربراصه سی) قره بربراصه "ي (پرخصه سی); Eng.: black hore-hound; Fr.: ballote fétide,

This is a slight perversion of the original order, already found in Droscumdes' text
 Not in Kurme's edition.

COMMENTARY

This is the common mountain-balm, the labiata Melissa Officinalis L. IB. quotes some lines of Gh. on the medical qualities of the balm, a quotation which was left out by BH. in his abridged edition. The plant is still medically used in most of the Northern lands. It is sometimes cultivated, e.g. in Thüringen and in the Black Forest in Germany. Its leaves, oil and infusion (Falia, Oleum, Aqua Melissae) are medicinal drugs and enter into the composition of a resolvent tea (Species resolventes), of the "Carmelite liquor" (Aqua Carmelitarum), the Spiritus Melissae compositus and many other preparations (see Luerssen, 1,1027).

The name badrangbuya, etc., i is the Arabicised form of a Persian word meaning "citron-scented." This name is sometimes applied to another labiata Nepeta Cataria L. var. citriodora Becker (Mechithar, p. 247). In the Spanish language there are still traces of the Persian names among the names of melia or cidronella: bedarangi, albedarrumbe and torongil (BOTIOA, p. 747).

IBN AL-'Awwâm (II, p. 273 foll.) wrote a paragraph on the cultivation of balm and its use for attracting bees to the hives.

Synonyms: Gr.: μελιστόφυλλον (melissóphyllon), μελίσταινα (melistaina); Lat.: aspiastrum (Pliny XX); Ar.: bådrangbûya مفرح القلب , bådlæranbûya بأذرنجوية , bådlæranbûya بأذرنجوية , mufarrik al-qalb بالمناب , baqlat ad-dabb بالمناب , baqlat ad-dabb بالمناب , habaŋ and raihân turungâni رعان ترعان أيان , la'iba malliyya بالمناب (Gh.), 'ushb an-nahl بالمناب , lâ'iyyat an-nahl بالمناب , (Loew II, 75); Pers.: bådrangbûya بالمناب , turun-jân نافت ; Turk: oghul otu بالمناب , (Avni, Handien), melissa المناب ; Eng.: balın, mountain-balın, balın-gentle; Fr.: mélisse (officinale), citronelle, herbe au citron, piment des ruches, pouchirade, etc.; Gerin.: Melissenkraut, Zitronenkraut, Zitronenunclisse.

(ABO Mansobe and after), shah-isparam أَمُّ الْهُ الْمِرِهِ, bustan-afritz الْمِعِيّلُ (VULLERS), raihān-i-kāhī الْمِعِيّلُ , raihān-i-sebz الْمِعِيّلُ , raihān-i-sebz (المُعَلِّلُ), Tuk : same names and festisyen أَسْلَتُ (samy); Eng.: (sweet) basil, basil-royal; fr.: basilic, basilic, grand basilic, basilic royal, basilic romain, basilic commun; Germ.: (grossblättriges) Basilienkrant, süsses Könirskraut.

145. Bâdhrangbûya بأَذْرُنجُبوية, (Mountain-) Balm (Melissa, officinalis L.).

(LECL. No. 221).

It is al-lâ'iba an-naliliyya اللاعبة التحلية (1) and at-turungan

Dioso. III (104): Μελισσόφυλλον (melissóphyllon) called also μελίτταινα (melitaina) or the bee's herb. It is so called because bees like to hover over it. Its leaves and twigs resemble those of $\beta \alpha \lambda \lambda \dot{\alpha} \tau \eta$ (ballôté) (3), except that its leaves are larger and devoil of down. Its odour is like that of lemons. Its leaves (prepared and) drunk with rue and applied in compresses to the place are useful for the sting of scorpions and the bite of the tarantula (rutailá' * $\lambda \dot{\omega}$) and of rabid dogs.

ANOTHER AUTHOR: It is moderately heating and refining, useful for diseases caused by black bile, for perfuming foul breath and gladdening the heart. Its dose is twenty drachms of the juice of its leaves. It is eaten raw or boiled.

GALEN VII (XII, 71) (3): Its faculties are like those of πράσιον (prasion) (4), but it is much inferior to it.

⁽¹⁾ I.e. "furnishing juice (honey) to the bees."

⁽²⁾ It is the black hore-hound (Ballots signs L.); see below No. 146.

⁽³⁾ IB. (I, p. 74, 129) pretends that Galan does not mention the balm; this is an arror.

⁽⁴⁾ Hore-hound (Marrabium Vulgare L.).

of names, Arabic and Persian, for the different kinds of Ocimum, and regulations for their cultivation.

All Persian and Arabic authors repeat DIOSCURIDES' allegation that basil is bad for the stomach. In Europe, however, the herb and oil were medicinal drugs used as carminatives and nervine tonics. It is still used, like thyme and sage, as a condiment for seasoning certain kinds of food. In India, the herb and seeds are used (DYMOCK III, 83).

In Ancient Egypt no kind of *Ocimum* has so far been found in the tombs, but Greek authors relate that it was cultivated as a spice and also used for making wreaths. To-day *Ocimum Basilicum* is a well-known and widely cultivated spice-plant in the gardens of Egypt (Kermer, p. 23-24).

Dâwûd (I, 131) gives quite correctly the Hebrew (Aramaic) name hôk أحمد for basil, and continues: "It is planted by women in the houses, but it also grows wild. Its name in our land (Syria) is "red basil" (raihân ahmar ما المسابق) and some people call it as-sulaimânî السابق because the spirits (Jinn) brought it to (King) Solomon who cured dysentery (rîh ahmar الدي المناف أحمد) with it. It has broad leaves, a quadrangular stalk, is acrid but not strongly so......" Then follow thirteen more lines about its medical properties.

SYNONYMS: Gr.: הייניים (ôkimon); Lat.: ocimum (Pliny) (1);
Ar.: habaq הייני (בשל ב habaq raihlint בל הייניים, raihlin maliki הייניים, habaq kirindint הייניים, dawmar and dawmardin הייניים, habaq kirindint הייניים (ABO Hantea, Birûnt), habaq sa'tart בשל הייניים, habaq bustant (בשל הייניים, rîhdin בשל (Egypt, Schweine.), shuft הייניים (Hadramaut, Issa), hamâhim בשל (Dozy), raihân kabît من المنحق (Berggren), habaq hamâhimî من أمام أمام مام المام ال

⁽¹⁾ The name besilicum scenes to be medieval and translated from one of the Arabic of Fersian names.

is one of its kinds, but some people in the East call الحبق القرنفلي it al-máida.

GALEN VII (XII, 158); It is hot in the second degree, lt is not useful in external administration, but is resolvent and maturing when used as compresses.

Drosc. II (141): "Outpow (ôkimon), i.e. sweet basil, when eaten causes dimness of sight, and purgation, but is aphrodisiae and diuretic; it is difficult to digest. Its juice clears up dimsightedness, but when smelled it causes sneezing; it is necessary to close the eyes well during sneezing. Libyans pretend that he who eats it does not feel the pain of the sting of scorpions (1). Some people prohibit its consumption because, if chewed and left in the sun, it generates worms.

AR-Râzî: It is good for the stomach and heart, but its abuse causes dimness of sight.

IBN Sina: There are opposite faculties in it; therefore it purges internally and checks epistaxis when externally applied, especially when mixed with vinegar and camphor. It soothes (pain in) the teeth and calms sneezing in one temperament but promotes it in another (fol 20 r). Its eating leads to bad consequences; it weakens the memory very much, and generates worms in the intestines, and blood of a bad quality.

COMMENTARY

Bâdharâg or bâdrûj is the Persian name for sweet basil, Ocimum Basilioum L. and its varieties. The Arabic names of the plant, or better, of the group of Ocimoideae, are raihân (L., habaq :- and hawl -- (from Syriac hawlâ). See Loew's learned and detailed paragraph (II, 78–83) on the Oriental names of Ocimum. Ibn Al-'Awwam (II, 279–84) gives a series

⁽¹⁾ DIOSO.'s Greek text reads, on the contrary, that he who eats it and is stung by a scorpion is irrevocably lost. The following phrase is missing from DIOSCURIDES.

This latter plant is still so-called to-day and is the golden thistle Scolymus hispanious L. (Schwenne).

It is evident that the thistles described by the Greeks as Atkantha leuke and by the Persian and Arabs as badaward belong to different species. They seem to be mostly Cricus and Circium, also Carduus and Jurines.

144. Bådharûg باذروج, Sweet Basil (Ocimum basilicum L.). (LECL. Nos. 223 and 892).

It is al-habaq ar-raihani الحبق الريحاني (" the odorant basil ").

IBN GULGUL: It is the habaq (2) with broad leaves and vivid green colour, which grows in gardens. Al-habaq al-qurumfili (3)

⁽¹⁾ I.e. "viper's thorns," perhaps the same as chasek al-bases فوك الحنش uacd for several kinds of thistics and thorn-shrubs (see Issa, pp. 49, 125, 128).

is the name of several odorant kinds of labiatac.

^(*) This is Osimum pilosum IV. (India), a variety of O. basilioum.

But it is so unsettled that some people call the same plant baddle ward الذاود and shuka' (على), while others take it for two different plants. We leave the final decision to the (article on) ash-shuka' (على) and discuss here only that which concerns the first (name). As-Rāzī said: "Bādhāward is a thistle resembling caltrop (hasak (على)) but whiter and less thorny. As Mu'adh and Asu'l-Khar say that the white thistle and ash-shuka' are the same as bādhāward. They also say that bādhāward is called in Sīstān (3) jūlāh-kash على المناسبة. Shuka's المناسبة is the thorn-shrub called in Persian tarāhi عبد المناسبة ألى المناسبة أ

Then follows an extract from Dioscurides, and at the end a notice is added, viz: "It is said that this (Dioscurides') description refers to the thistle (haishar مثيثر) which is called in Sigzi-dialect (*) jájáwáns زازاون).

IDRISI (p. 49) says that bådhåvard has heads like the wild (woolly) safflower (qurtum barri בילא ב. b., Carthamus lanatus L.), and identifies it with the akhanthion of Diosc. (see above, our article No.26, p. 67), but gives Diosc's description of åkantha leukê

Dâwθo (I, p. 130) says: "Bádháward is a Persian-Nabataean (sic!) name, the meaning of which is "white thistle." In Greek it is called πράσιον (prăsion) (5) and ákantha leuks. It has a triangular stem, the upper part being round with erect thorny leaves and a red flower with a kind of white hair in its centre,

^(*) For the first word we could not find an equivalent, for the second Brockelm., p. 627, stress [15,4, and 217 haddress [150,4].

^(?) This paragraph is unfortunately missing from the Birdat MS., falling into the gap at the letter ships __r.

^(*) To-day Balûchistân.

⁽⁴⁾ The language of the above-mentioned land, Sistân or Sigistân.

^(*) This is an error; presion is the hore-hound (Marrabium valgare L., Labiatae).

except that they are more round. The drinking of (a decoction of) its root is good for bacmoptysis and chronic diarrhoea. Its seed is useful for the bite of snakes; if hung in places where yenomous reptiles (hardimm (**et)*) are found, it expels them.

GALEN VI (XI, 819): Its root is dessicating and moderately astringent. When applied as compresses it causes the atrophy of soft swellings, and its decoction is useful for toothache as a gargle.

AL-MAGÛSI: Its root is more efficient than its leaves. It is useful for prolonged fevers, and, when masticated into a paste and applied locally to the sting of scorpions it relieves it.

COMMENTARY

This is the common thistle, the composite Cnious acarria L., (Picnomon acarria Coss.) or, perhaps, according to Fraas, the high-grown mountain thistle Cnious ferox L. Sickenberger (Arm., p. 27) does not try to determine the particular kind of thistle. Theophrasius (VI, 4) calls it ăzaçva (âkarna) while his âkantha leukê is a quite different plant, Acacia albida Del., an Egyptian tree. The name bâdaward or bâdhâward persian and is mentioned by Abû Mansûr (p. 164).

IBN Sînâ (I, p. 265) and IBN GAZLA only repeat Dioscur-IDES' description.

Al-Bîrûnî (p. 34): "Bâdhâward, a Persian name indicating the light weight and the closeness of the branches, which help it to struggle against the wind" (1).

Its Greek name is levzarbuch (leukanthike) and also darbiga (2), and its Syriac name kabá 'aryána, also sába khawara

⁽¹⁾ Badd in Persian is "wind," award " battle, fight."

^(*) The first is probably \(\text{\text{cux2x2v01}}\) (leukákantl:a), the second mutilated,

being a Spanish plant, it ought to have been known to Gh. On the other hand it does not exist either in Egypt or in Africa, where Copts and Sudanese live and are said to carve bracelets from it.

The name is undoubtedly Persian. Indeed we found it in Vullers' Lexicon (I, p. 204) under the forms of badisphan יְבּיבֹּאלוי, badishghan יְבִּיבֹּאלוי, badishghan יְבִּיבֹּאלוי, badishghan יְבִּיבֹּאלוי, badishghan יְבִּיבֹּאלוי, badishghan יְבִּיבּיאלוי, vullers identities it with Convolvulus arvensis (bindweed), helvine of Dioscurides, Arabic abhi أَمَّالُ أَبِيهُ اللَّهُ الْفَالِيّةُ الْمِنْ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهِ اللَّهُ الللللْلِلْمُ اللللْهُ اللَّهُ الللِّهُ الللللْلِي الل

To-day there is no plant in Egypt which could be used for bracelets, but in the Sudan there are trees and creepers which

provide curled rings for the above purpose.

Achundow (p. 398) calls it badkasan بدكسان and believes it to be identical with kesht berkesht كشت بركشت (the screw-tree, Helicteres Isora L.) the spinal shoots of which are used as bracelets. But this again is an Asiatic plant and is not found in Africa at all.

143. Badhaward بأذاويد, Thistle, Cnicus (Picnomon Acarna Coss.) and others.

(Lecl. No. 222).

Diosc. III (12): "Ακανθα λευκή (ákantha leuké) or the white thistle. It grows on mountains and in thickets. Its leaves are like those of the white χαμαλίων (khamailéôn) (1), but finer and whiter, and covered with a kind of (woolly) down. It is a thistle with a stem that rises over two cubits high, as thick as a thumb and even thicker, not so white in colour, hollow and quadrangular (2). At its end is a thorny head resembling that of a sea-urchin except that it is smaller and more elongated. Its flower is purple-coloured, its seeds are like the grains of safflower,

⁽¹⁾ Atractylis gummijera L. See above in article No. 25 (Ishkhis, p. 95).

⁽a) The word "quadrangular" is missing in Diosc.'s original text.

The root which is sold at the present time in the Cairo bazaars under the name of al-misto gila is the bulbous root of an orchid, perhaps Orchis hircina L. It is sometimes four or five-fold, rugged, brown outside and white inside and has a slightly sweet taste. 'Irq el-intirâb is a quite different drug —a long grey root, white inside, and has no taste. It resembles the root of Potentilla Tormentilla.

SYNONYMS for this drug are given in a great number by Issa (p. 129, 8). We give the following as being the most probable:—

Ar.: bahag جرب musta'gila مرة (Gh., IB.), la'ba musra (Gh., IB.), la'ba musra المبة مرة (Dâwôd), 'irq intirâb عرف الطراب (Egypt, Dâwôd), bûzîdân maghribî بوزينان مترب (ISSA); Berber: thâghashtasht (? Idrîsî) (²). There are no European synonyms for this drug.

142. Badiskan بدسكان. (Undetermined).

(Lecl. Nos. 252 and 1954 - badhiskan بنسكان).

الداسقان و بدسقان att is called bådåsgån, badasgån and badåskån الداسقان و بداسكان

IBN SARAFIXÛN: It is said that it is a cylindrical plant which is imported from Adharbaijân (a).

AR-Razi: A plant of which the Copts make bracelets.

IBN Sînā: A plant of which the Negroes make bracelets.

AL-Magtist: (3) It is hot, dry sedative and resolvent.

COMMENTARY

Sprengel and Leclere think that this plant is the leguminosa Spanish broom (Spartium junceum S.). This is not possible as,

⁽¹⁾ The last two names prove that the plant must exist in North Africa.

⁽³⁾ A land in Northern Persia, to the west of the Caspian Sea.

⁽²⁾ See Introduction No. 27, p. 17.

it was exported to Syria. SICKENBERGER (Plantes, p. 19) tried to identify the drug and proposed Centaurea glomerata Vall; this is not probable as the drug has a nutrient quality. Al-mughath, mentioned by Gh., is the very big white root of GLOSSOSTEMON BRUGUIERI D. C. exported from 'Irâq to the lands of the Near East. Bullan is mostly the root of Orchis Morio L. (1). Issa (p. 129) proposes Orchis Hirchina L.

IDRES (p. 65) gives a rather detailed description of the plant bahag :. A gloss in a different hand in the margin says: "It is blesiden." The description, however, does not apply to an orchid. IDREST says; "Its name is in Latin langabthas "أَعْشَشُتُ "It is a plant which rises from the soil to the height of a span or even higher. It has a round crown and few small twigs. It has leaves exactly like those of the bean and is of a sweet taste. Its stalk is straight and on the ends of its twigs are small capitula like fine water bubbles, with sheaths in the interior of which there are seeds. Its root is twisted, white, easily crushed, hot and wet......"

This must be a leguminosa; its properties are said to be fortifying and aphrodisiac.

⁽¹⁾ See the foregoing paragraph No. 140.

⁽²⁾ Perhaps lycapeus (PLEY XVII), a kind of Enhirm ?.

which I do not know anything. Its best kind is the thick, white and rough-ended with many streaks. It is adulterated with colcium (or mandrake? laba.")."

DUCROS (No. 124) takes it for Orchis Morio L., but the name bazidan or aba zaidan is now unknown in the Cairo drug-bazaars. About al-musta gla see the following paragraph No. 141.

Synonyms for Orchis Morio L.: Ar.: khusa'l-kalb, khusa'th-tha'lab (مناص الكلب والتعلب (علي الكلب والتعلب (علي الكلب والمناب (علي الكلب والمناب (علي المناب المناب

141. Bahag Er. (Orchis hircina L.?).

(Lecl. Nos. 366 and 2130).

It is al-musta'gila المسجدة and a common drug which is brought from the Orient. Some people say it is al-musta'th عناه الماث الماث

COMMENTARY

The description of this drug is missing in both Gh.'s and IB.'s texts. The latter author, however, said that al-musta'gila was a known plant in the region of Alexandria in Egypt wherefx m

⁽¹⁾ I.o. "dog's and fox's testides."
(2) I.o. "his brother's murderer."

^(*) I.o. "the living and the dead." These two names are both derived for the sapect of the two bulbs, one of which is dry, shrivelled and old (that of the foregoing year) and one fresh and young; parent and daughter root.

GH, does not think that bûzîdân and bahag are roots of orchis

ABC-Mansur (p. 167) mentions the drug without giving a description thereof, and his translator Achundow rendered the name buzzidan with Orchis Morio.

Bîrêni says: "Bîzîdên. This name is Persian, and the Sindî name (1) is shadhwâr. This name is Persian, and the Sindî name (1) is shadhwâr. It consists of white, smooth and wholly rugged roots. One kind comes from Baghdad and is called al-musta'gila; this is smooth and not rugged. It is fattening to the body. Al-Arrajânî, Arrasâ'nî and Ad-Dimishqî (2) say: It is an Indian drug and the best kind is the white and thick wood, covered with many streaks: the smooth, thin and slightly white kind is bad."

We find that the description of the drug from Baghdad agrees with al-maghdil, the root of Glossosyemon Bruguerer D. C. which is treated later on. It is still sold in the Oriental drug-bazaars as a remedy causing women to become fat. Its origin was always unknown to the Arabic and Persian Pharmacologists. Schweinfurth discovered its identity 50 years ago; the root is imported into Egypt from Baghdad. It grows in the mountains on the Irag-Persian frontier.

IBN GAZLA calls it an Indian drug and repeats literally the description of the three Persian authors.

The Persian dictionaries simply say that biliblan is al-musta'-gilo in Arabic and that it is a fattening drug.

Dawon (I, p. 171) says the following: "Buzidan is a collection of thousands of woody pieces which are imported from India and about which the opinion of medical men is very variable. Some say that it is al-musta'gila or some kind of it. Others say that buzidan is the branch and al-musta'gila the root; others say that it is colchicum ("the Berber-orchis," al-la'ba al-barbariyya مناله المنالة الم

⁽⁴⁾ Sind in the valley of the lower Indus (North-west Indus). The name ahadhudrreminds us of jadesdry, the Persian name of sedestry (root of Curuumia Zedoaria). See under this drug (intis No. 206).

⁽²⁾ Three Persian pharmacologists whose works are lost,

IBN RIDWAN: It is a kind of al-musta'gila (1) It is hot and dry in the third degree and dissolves thick and cold chymes.

IBN MASAWAIR: The best kind is that which is of white colour (fol. 19 v) and the wood of which is thick, has many streaks (is very rugged) and not smooth.

Hubaish: It is as useful as as-suringan السورنجان (Colchicum) for arthritis and gout.

MASARGAWAIH: It is hot, increases the (secretion of) sperm and, when drunk in the dose of two drachms, relieves ascites.

IBN Sînā: It is useful against poisons.

COMMENTARY

There is a great confusion of opinions about this drug and its synonyms. The descriptions given by Gh., IB. and others are, unfortunately, not only imperfect, but contradictory. Dra-GENDORFF (D. 676) thinks it to be the composite Tanacetum umbelliferum Boiss, and Dymook (II, 137) Caucalis orient, and daucoides L. But the majority of historians of botany think it to be an orchidacea, probably Orchis Morio L. This plant has a twofold white bulb which is used as an aphrodisiae and for the preparation of salep (sahlab , a mucilsginous drink much in use in the Orient. This drug is in no way rare and is not imported from India, consequently cannot be identical with IBN Gulgul's drug. On the contrary, the bulbs of Orchis laxiflora Lam, are imported into India from Persia and Afghanistan and are called salup misri (Egyptian salep) (Dymock). Salep is, however, prepared from many kinds of Orchis, e.g. O. mascula, longebractcata, latifolia, palustris, papilionacea, globosa, hircina and puramidalis (Dragend. 148-9). The species Ophrys, Scrapias, Aceras, Eulophia, etc., also have nourishing roots which are used as aphrodisiacs.

⁽¹⁾ See commentary and following paragraph.

he saw the red behen in the mountains (of Afghanistan probably) and that its root (urama ()) was like a dark-red carrot.

Innisi (p. 47) describes the white behen-plant as being from one to two spans high, having small leaves like the common mallow (khubûzî j.) which later on become dentated and large like those of the plum-tree. The root is blackish-red outside and white inside.

Dawûp (I, 170) repeats this description and adds that the root of both kinds resembles a carrot, but is distinguished only by the colour. He then gives a long enumeration of their medicinal properties and of their substitutes.

SYNONYMS:

(a) Centauren Behen L.

(b) Statice Limonium L.

Ar.: bahman ahmar ביילי הייל; Pers.: bahman-i-surlh ביילי הייל; Turk.: qizil behmen: وَإِنْ إِنْ الْهِ الْهُ الْهِ الْهِي الْهِ الْهُ الْمُلْعِلِينَا اللَّهِ الْهِ الْهِ الْهِ الْهِ الْهِ الْهِ اللَّهِ الْهُ اللَّهِ اللَّهِ الْهِ الْهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللّهِ اللَّهِ اللَّالِي اللَّهِ الللَّهِ اللَّهِ الللَّهِ اللَّهِ اللَّهِ الللَّهِ اللَّهِ الللَّهِ اللَّهِ اللَّهِ الللَّهِ اللَّهِ الللَّهِ اللللَّهِ اللَّهِ اللللَّهِ اللللَّهِ الللَّهِ الللَّهِ الللَّهِ الللللَّهِ الللَّهِلْ

140. Bûzîdân بزيدان, Orchis Morio L. (?) (Leel. No. 373).

All the druggists call it abd-zaidin أبر زيدان and pretend it to be khusa'th-tha'lab خصى النعلب (orchis); but this is an erroneous opinion. Some people pretend that it is al-bahag or some kind of it.

IBN GULGUL: Al-blizidin consists of hard white roots resembling white behen (2). It is an Indian remedy not much in use but is imported to us, and I have seen it sometimes.

⁽¹⁾ See the following paragraph (No. 141).

^(*) See the preceding paragraph (No. 139).

which the roots of the two kinds of bahman were cooked and eaten with sugar. However, the day was considered to be a propitious one for collecting any medicinal herbs.

White behen (or white rhapontic) is the root of the composita Centaurea Behen L. It is whitish-brown externally, much shrivelled and twisted, more or less branched and its inside cream-coloured. Ducros (No. 47) found it in the Cairo bazaars and gave a photograph of it. It is sometimes confused with the root of Pastinaca Schekakul Rus. (shaqaqul مناقلة) or gimgin (مناقلة المناقلة) and others. The first plant mentioned by Gh. may be Rhaponticum cynaroides growing in the Pyrenees. The second kind, of hard ivory-coloured roots described by Gh., agrees with Glossostemon Bruguieri D. C. (mughāth مناقلة), a drug well known in the bazaars of the Near East.

The red behen (red rhapontic) is said to be the root of the Mediterranean plumbaginacea Statice Lomonium L., but Loew (III, 68) contests this identification. Several other plants are named as the origin of the drug, e.g. Withania (Physalis) flexuosa (Ainslie, Materia India II, 14). The third plant described by Gh. under the name of kaff Adam could not be identified. It may be mentioned here, however, that the Persian author Mîr Muhammad Husain, in his voluminous pharmacology Makhzan al-Adwiya שَرِنَ الْأَدُولِةُ (Teheran, 1277 A.H., vol. 1), confirms Gh.'s sayings.

With regard to the two last plants (al-kaff al-gadhma' and barshana) described in detail by Gh., we believe that they must belong to the species of liliaceae or amaryllideae, many kinds of which possess purple flowers and bulbous roots formed like mutilated hands ("leprous hand"). The name of "hand of lepers" (kaff al-agdham (اكف الأجذا) is given in modern times to Verbena officinalis and Vitex agnus castus., but they have nothing whatever to do with bahman.

ABÛ MANSÛR the Persian does not give a description of "the two balmans" (al-balmanên harall). Bîrûnî narrated that

Spanish) vernacular barshana 412, (1). The herborists sell the root of the barshana for the real white behen, and we believe that it has the same faculties. This plant has leaves one cubit long and less than a span wide, is slit up, lofty, stout, smooth dark green and shiny. Many leaves grow from one root, and its hent ends incline downwards toward the soil. It has a stalk growing from the middle of the leaves, as thick as a thumb long, hollow, round and, from its middle up to the end, covered with small apprecated leaves; between them are many sheaths one over the other formed like a duck's bill, which carry purplewhitish flowers and contain an acorn-shaped fruit full of viscous juice. It has a long, knotty and soft root resembling that of marsh-mallow (khatmi خطمي), full of viscous juice. It is buried in the soil, is somewhat sweet and bitter, and its faculty is like that of behen. It is aphrodisiac, nourishing to the body and diuretic. Some people call it matrashana عارشانة and others "the merchants' herb " ('ushbat at-tuggar عشبة التجار). It grows in wet places, on mountains and in moats. Some people carry it with them to (their) lodgings and gardens.

COMMENTARY

The foregoing paragraph of Gh. is missing from IB.'s text. The latter author quotes on behen only early Islamic physicians (Is-hâq ibn 'Imbân, Ibn Sìnâ, ab-Râzî and Masîh). The plants described by Gh. cannot be identified exactly, although his description of the last one is remarkably detailed.

As to the name of bahman (behen), it is Persian and is the name of the month of January, specifically of the second day of it. We learn from Vullers (1, 288) and Dymock (II, 303 foll.) that that day called Bahmanjana was a holiday on

⁽¹⁾ We could find neither this word nor any similar term in Spanish botanical treatises.
(2) This must be a Spanish name; probably madraseles, i.e. caprifoly (Lonicera aspeciolism L.)

Another Author: The behen (baleman) is of two kinds, a red and a white. They are roots of the size of the carrot; most of them are twisted, curved and rippled, of an aromatic smell and flavour and somewhat viscid. The behen is hot in the second degree, thin, aperient, very fortifying to the heart, fattening, useful for gout, and an approdisiac.

THE AUTHOR: The physicians of later periods were in agreement about the description of behen (bahman) and its faculty (fol. 19 r.). It is, however, nuknown in our days, and the diversity (of its description) is great. That which is imported is also very different in kind, as it has no likeness to the description given by them (the old physicians).

It is imported in the form of roots like carrots, white inside and lac-coloured outside. This is said to be the red behen. There are also other fragments imported, resembling ginger, hard like borns, ivory-coloured and viscid, which are said to be the white behen. There is another plant in use called by some herborists (shaggar), "Adam's palm" (kaff Adam's) which, they say, is the red behen. This is a plant which reaches the height of about one cubit. Its leaves are of the size of, and rounded as, those of the myrtle. Its ligneous roots are of a colour intermediate between black and yellow and its inside is reddish.

There is still another plant called "the leprous hand" (al-kaff al-gadhmā' الكف الحناء); it has a root like a rape (shalgama شلجه) of greyish-red colour, brittle, light and with two or three things resembling fingers, protruding from it. This plant shines, is square, of a purple colour, bears purple flowers like those of the orchid (khusā 'l-kalb خص) and looks as if it were one of its kinds. It grows on sand-dunes left by the sea. Its root is used as a substitute for red behen and it has the same (medicinal) faculty.

There is also another imported kind of white, long, twisted, soft and viscid roots; this is the real behen. But there are people who believe it to be the root of the plant called in IBN AL-HATTHAM (1); It is a plant with thin leaves of the form of those of the indigo-plant (2). It is thin and one cubit in height. At the origin of every leaf is a small tender sprout ('usling') at the end of which are small capitula like those on the twigs of the umbel of dill (shibith Anethum graveo-leus L.); the seeds also are similar, and if the root is carried about by a woman, she does not conceive.

COMMENTARY

The description of this plant does not agree with that given by Dioscurides for his "other kyklaminos" (ed. Wellman II, 165), for the latter is the caprifoliacea Lonicera periclymenum L. called in Arabic sarimat al-gadi — , while the description given by Ibn al-Haitham cannot agree but with an umbellifers. Sickenberger (Arr., p. 30) thinks that it may be a kind of Bupleurum with long leaves, and we believe that he is right, as there is a certain resemblance between the habits of this umbellifers and the crucifera wood (nil — , Isatis tinctoria L.). Several kinds of Bupleurum were formerly in medicinal use (see Dragend., p., 486).

139. Bahman i r., Behen (Various roots). (Lecl. No. 367).

Inn Ridwan: It is the root of a wild carrot (gazar barre).

There are two kinds, a white and a red one.

A) There were two physicians with this name who both lived during the XIth cen.

(ا) Abū 'Ali Minhammad ihn al-Haran ihn al-Haitham (المناسخ بالمناسخ بالمناسخ بالمناسخ بالمناسخ بالمناسخ بالمناسخ المناسخ بالمناسخ بالمنا

⁽⁵⁾ The MSS. T. and G. as well as the printed edition and our MSS. of IB, all read will J. (Creace)hore inscioric A.I. or Leatis tinctoric L.). But Lectere (vol. I, p. 203) proposes to read thill J. (a grammes, either Afage repens Beass. or Cynodos dactylon Pera.).

In the Brussa MS. of Bîrûnî the article bukhûr Maryam is missing.

Dâwûn records several mutilated Greek names and some Arabic once of the plant, and mentions, besides the purple kind. of cyclamen, a blue one (asmângûnt ילישליים) with two varieties, one with smooth green, and the other with downy, whitish leaves. He adds that the bulbs are harvested in the Coptic month of Baramûda (אישליים (אישליים), April, but that those collected in Ba'ûna (June) are more efficacious. This must refer to Syria, as the plant does not grow in Egypt.

138: Bukhûr Maryam Akhar بخود مرم أخر "Another Cyclamen" (Bupleurum ?).

(Lecl. No. 248).

⁽¹⁾ Perhaps a mis-spelling for ar-raqy ارفف.

with µshinparov (melikraton, honey-milk) mixed with pure water, it cures jaundice in the dose of 3 mithqals. The patient must, when taking it, keep warm by covering himself with many blankets or by lying in a hot room to promote perspiration. When drunk, or smeared on the navel, the abdomen and the flanks, it kills the embryo. It also purges.

GALEN VII (1) (XII, 50): Its faculty is cleansing and detersive, aperient, (attracting), resolvent and diuretic; it expels the embryo, when smeared on the abdomen. It is useful to jaundiced patients as it removes gall from every part of the body by perspiration. Perspiration must be promoted in persons poisoned by it, for it is the only method of curing them.

COMMENTARY

This drug is the root of the primulacea Cyclamen europaeum L. The broken bulbs of the plant are sold in our days in the Cairo drug-bazsars under the name of 'artanîtâ' לשליבוֹל (Ducros, No. 163). This name ('artanîtâ' של בּעוֹנֵל (Ducros, No. 163). This name ('artanîtâ' של בּעוֹנֵל) is Syriac. The Greek name (kyklâminos) is equally known to the Oriental druggists, but in the mutilated form of faqlâmînûn set Tubera Arthanitae (Lukresen II, 942). They contain cyclamine or arthanitine, a poisonous, hemolytic kind of saponine, acting as an emetic and purgative. They can be eaten by pigs without causing them any harm. From this fact are derived the names of the plant in European languages (See synonyms).

IEN Sînî describes under the name of 'artanîthâ (Qînûn, vol. I, 296) the root of a quite different plant.

IBN GAZLA Says that 'arthanitha is the root of bukhur, Maryam or shagarat Maryam, and gives a description of its medical properties according to Dioscurides.

⁽¹⁾ In the MSS.: VI, copyist's acror.

COMMENTARY

The description of this drug is too vague to help to an exact identification. The Italian botanist Mattioli (d. 1577), in his commentary on Dioscurides' Materia Medica, identified the "emetic bulb" with the bliaces Muscari moschatum W. Lonicer proposed Scilla bifolia L., Camerarius Narcissus poëticus L., Sibthorp Orwithogalum stachyoides Ait., Fraas Orwithogalum nutum, and several others Narcissus Jonquilla L. (Lect. and Sickens, Arza., p 36) All Persian and Arabic pharmacologies simply copy Dioscurides's and Galen's paragraphs on the "emetic onion."

SYNONYMS: Gr: βολδός ἐμετικός (bolbós emetikós, Diosc., Galen); Lat: bulbus vomitorius (Pliny); Ar: basal al-qayy' (Idensis, p. 54), basal al-misk (Idensis, p. 54), basal al-misk (Issa 121, 8); Pers. and Turk.: same names; Eng.: emetic onion; Fr.: oignon émétique; Germ.: Brechzwiebel.

137. Bukhûr Maryam ביצנ מיץ, Sow-bread, (Cyclamen curopaeum L.).

(Lecl. No. 247).

Diosc. II (164): Κυκλάμινος (kykláminos). Its leaves are like those of κισσός (kissós, ivy) and on them are traces of white coloration (1). Its stalk is four fingers long and bears a blossom resembling a purple-red rose. It(s root) (2) is preserved like the squill (basal al-fâr). It grows in warm, shady places, particularly in the shade of trees. Its root, when drunk with ὑδρόμελι (hydrómeli, mead), purges excessive phlegm and dry chyme. It is said that a pregnant woman, stepping over it, aborts; and if worn bound round the neck or the upper arm it prevents pregnancy. Mixed with wine it acts as an antidote against poisons, especially the marine hare (3), and

⁽²⁾ In the original text of Drosc,: "They are multi-coloured on the underside, variegated and whitish on the upperside."

⁽²⁾ This word is missing in T. and G.

⁽²⁾ See above, chapter No. 116.

racemosum Mill. or the purse-tassel Muscari comosum Mill. There are, however, some other and lesser known species of Muscari which agree with the description. Sickenb. (Aran.; p. 42) does not try to identify the plant.

Muscari comesum Mill. grows in Egypt as well as in other lands on the Mediterranean. Its active (diuretic) principle is "comosum acid." a kind of saponine.

The drug which is sold nowadays in the Cuiro drug-bazars under the name of basal azzīzi, Jun; is the bulb of Ornithogalum umbellatum. L. (Ducros, No. 39, p. 22).

Concerning Syriac names of the bulb and their etymology see Loew II, pp. 184-7.

Synonyms: Gr.: βολδὸς ἐδωδιμος (bolbós edôdimos, Diose,)
βολδὸς ἐτθιόμενος ἡμερος (bolbós esilviómenos hémeros, Galen);
Lat.: bulbus (Celsus, Pliny); Ar.: bulbūs esilviómenos hémeros, Galen);
Lat.: bulbus (Celsus, Pliny); Ar.: bulbūs basal
ma'kūl ליל, bulbūs basal
ma'kūl ליל, (Idrīsī, Dāwūn), basal az-zīz بالله الأرز (land mutilations of this name, vide suprā) (¹) basal barrī بعدل القراء (Loew), maddād el-qerā'a أَمَالُو القراء ما hand busail المساد (Modern Egypt,
Schweine, p. 31); Pers.: zīzī كَنْ (Abū Mansūr), zīza كُنْ (Inn Sīnā), lalkhpiyūz المناز (lan Sīnā), lalkhpiyūz bulbā) (the same), piyāz-kalākh بالأخلال (Naficy II ,1173); Eng.: purse-tassel, fair-haired hyacinth; Fr.: muscari, jacinthe a toupet; Germ.: Schopfblütige Perlhyazinthe, Schopfhyazinthe.

135. Basal al-Qayy' . "Emetic Onion" (Muscari moschatum W.?).

(Lecl. No. 297).

Diosc. \dot{IV} (156): Its leaves are thinner and much longer than those of the "edible bulb." Its root is similar to the other's root, but has a black peel and is emotic.

GALEN VII (XI, 852): It is hotter than the first-mentioned.

⁽¹⁾ For other names see ISSA (p. 121, 3) who does not, however clearly distinguish between the edible and the emetic bulb (see No. 136).

GALEN VI (XI, 851): The purse-tassel (az-ez z) produces, a cold, thick and viscous chyme, as it is difficult to digest, is vaporiferous and excites the lust for coitus. Externally it cleanses, accelerates cicatrization and dries.

Drosc. II (170): المعرفة. It is an edible plant; the red kind comes from Libya and is good to the stomach. The bitter variety resembles the squill (ishqui المثلية) and is much better to the stomach than the sweet one. It makes the aliments more digestible and strongly excites the appetite. It makes the flesh grow, produces vapours and renders the tongue and the corners of the mouth sore. As a compress with honey it is useful for the bite of rabid dogs.

COMMENTARY

There is some confusion reigning about this plant as well as about the following (No. 136). Theophrastus mentions βολδός (bolbós) frequently in his books I & VII. He describes in detail. the purse-tassel (Muscari comosum Mill.) and also several other species which are nearer to the hyacinth. Dioscurides and Galen give it the name of "edible bulb" (see synonyms), which was translated into Arabic as basal ma'kal بصل ماكول The other name, busul az-24z بصل الزير correctly spelt in our T. MS., is mis-spelt by most of the later Arabic authors (basal az-zîr or basal ad-illiab بصل الزيراو بصل الذيب IB., IBN (GAZLA, Dawod). ABO Mansûr (p. 161) calls it בَزْى , and Ibn Sînâ (I, p. 269) bulbûs or zizu (أ بابوس أوزية (1) . The latter author says that some botanists Cersian طلخبياز Persian طلخبياز Persian name, missing from dictionaries). IDRIST (p. 53) describes the umbel (qinqila فنقله) of the plant as resembling that of the onion This and Ibn Sînâ's note that the flower somewhat resembles the violet speak again in favour of a liliacea, the blue Muscari

⁽¹⁾ Zing ביל are (according to Lesan VII. p. 226 1, 18) the unravelled ends of feathers: 80 ziz alludes to the fringes or tassels of the bulb.

placed on mummies. The idea was to stimulate the defunctto-breathe. On Sham-al-Nessim day (Easter Monday), in modern times, all Egyptians smell green onions that have been soaked in vinegar during the preceding night.

Theophrastus (b. I & VII) has distinguished many varieties of onions. The idea that the onion is possessed of nocive properties is very old; it is reiterated by all the Greek, Persian and Arabic medical writers. And Mansûr (p. 161 foll.) gives a long paragraph on the kinds of onions known in Persia and their pretended properties. Inn Gazla, Idrûs' and Dûwûd alli repeat Dioscurides' sayings. But Dûwûd speaks about the sweet Egyptian onion and its cultivation. Inn Al-'Awwâm (II, 184-192) has two long paragraphs on the (Spanish) agriculture of the onion, of which he mentions a kind al-jabalîn culture of the onion, of which he mentions a kind al-jabalîn culture of the onion, of which he mentions a kind al-jabalîn culture of the onion, of which he mentions a kind al-jabalîn culture of the onion, of which he mentions a kind al-jabalîn culture of the onion, of which he mentions a kind al-jabalîn culture of the onion of Spanish cebollino).

The root b.s.l. بعمل is generally Semitic, Hebrew, Aramaic and Ethiopian; Assyrian bisru (see Loew II, p. 126, foll.), which is also Egyptian.

135. Bulbûs & Purse-Tassel or Fair-haired Hyacinth. (Muscari comosum Mill., etc.).

(Lecl. No. 337).

Bulbus is also called basal az-ziz بصل الزيز

AGRICULTURE: It is an onion without layers (taque "b). Its leaves and general shape are like those of the garden-onion. Its bulb grows quickly under abundant rain. Its taste is bitter and astringent, and makes the throat sore.

Fr.: aubergine, mélongène, varengeane; Span.: (al)berengena, melongena; It.: melanzana, petronciana; Germ.: Eierfrucht, Melanzane, Melanzanapfel.

134. Basal بصل, Onion (Allium cepa L.).

(Lecl. No. 296).

GALEN VII (XII, 48): It is heating in the fourth degree, and its substance is consistent.

Diosc. II (151): χρόμων (krómyon). The elongated kind is more acrid than the round one, while the red one is sharper than the white. Dry onions are sharper than fresh ones and the raw are sharper than the grilled, pickled or salted. All onions are, burning, gas-forming, exciting to the appetite, cause thirst, are rarefying (to the humours of the body), stirring, emetic, ballooning the belly, opening the orifices of the blood vessels and relieving haemorrhoids. The juice of the onion, if instilled into the eye mixed with honey, is useful for weakness of the vision, for ἄργεμα (árgema) (¹), (fol. 18 v.) white clouds and incipient cataract. The decoction is a very strong dimetic.

Another Author: It causes a nocive mixture (of humours or chynucs) and is injurious to the mind. Cooking diminishes its sharpness and gives it an aphrodisiac action. If eaten raw it checks the harmfulness of the different kinds of water.

COMMENTARY

This is the ordinary garden-onion, the liliacea Allium cepa L. The original native land of the onion is unknown (2). The bulb itself is known from immemorial time, for it has been found in Egyptian prehistoric sites. Dry onions were found

⁽⁴⁾ Plur. of ἄργεμον (άrgemon), i.e. a slight opacity (nebula) of the cornea of the oye. The "white cloud" (ghamáma τιν) is a corneal leucoma.

⁽²⁾ Sargeaunt (The plants of Virgit, Oxford, 1920, p. 29) however, calls it "probably a nativo of Reluchistan."

magha المند (1), al-anab الأنب (2), al-kahkab (3), and al-waghab (4), al-hadaq (1), al-kahkab (1), and al-waghab (1), Bîrûnî furnishes a good explanation of the name Bûrûnî פעולה פעול for an Oriental dish (4) or for the bâdhingân Bûrûn (1); they are both named after a Persian (Sassanian) queen, Bûrûn, daughter of Parwêz, עעולי יִנִיי בעיל עניי בעיל (who reigned for a brief period in 630 A.D.). At the end of his paragraph Bîrûni cites some occurrences of the bâdhingâna in Ancient Arabian poetry.

Idensi (p. 68 foll.). gives a long paragraph which was mostly copied by IB. (Lecl. I, p. 193 foll.). It is remarkable that Idriei writes melanzôna as a Byzantine Greek name and baid al-gân שביי as a Berber one. The latter is undoubtedly an Arabic mutilation (its meaning is "eggs or testicles of genii") from the Persian bâdingân. As to the first name, the Byzantine writer Simeon Seth (XIth century A.D.) spells it μανιτάνιον οτ ματιζάνιον (malitânion, malizânion) (5).

IBN AL-AWWAM (II, 236) knows four different varieties of the brinjal; one Egyptian, one Syrian and two Spanish.

Synonyms: Gr.: στρύχνος κηπειίος (strychros kêpaios, Dioscστρ. κηπευτός (str. kêpeutôs, Galen), ματιτάνιον (matilánion, Simeon Seth); Lat.: solanum (edule) (Celsus, Pliny); Ar.: bâdingân, bâdhingân المناف المقالية المناف ا

⁽¹⁾ LESAN IV, 416 allows the spellings magked or magket.

⁽a) Iasān XI, 323 spells hadhaq حأق.

⁽²⁾ Confirmed by Lexia II, 224, also the form Kakkess page (according to law A name).

⁽⁴⁾ Described by Dozx I, 126, last lines,

^(*) SIRMONIO SUPERI Syntagma de Alimentor. Facultatibus, ed. B. Langkuvel. Leipnig. 1808, p. 70.

^(*) This name is Hindusteni.

not high, with numerous shoots, black leaves larger and broader than those of basilic and a globular fruit (1), green or black; it becomes yellowish when ripe. As an aliment it is harmless." The last remark proves that it cannot be the black nightshade (Solumum nigrum L.), the fruits of which are poisonous.

The origin of the plant and of its name is probably Indian. The old Sanscrit name is vártáku or bártáku, the name of its relative Solanum Indicum L. is bhantaki (2), bátinghân, Arabicised bádhingân.

All the Arabic and Persian writers, from RHAZES down to Diwûd, take the brinjal for a plant with nocive properties. The black colour of the fruit may have been the cause that made RHAZES (according to ABÛ MANSÛR, p. 159) think that it caused black spots on the skin, black bile and ophthalmia; and IBN Sini (Qûmîn I, p. 272) cancer, eczema, leprosy, epilepsy, constipation, dryness of the mouth and insomnia. From this Kobert drew the conclusion (Achundow, p. 346) that the fruit contained in former periods more alkaloids (solanine, etc.) than to-day. We think it is the stage of ripening that is of importance. The nuripe brinjal is acrid, bitter and still contains some alkaloids; when ripe and well prepared it is a good vegetable, wholesome for food.

The European names of the plant are nearly all derived from the root bådhingån. As to the four Arabic names given by Al-Ghāfiqi they are all confirmed by Bîrûnî who names among his sources Arû Hanîfa, Hamza al-Isfahâni (famous philologist) and some unknown authors (3). He first gives the Syriac name yabrûhê \$3.2, then the names al-maghl like (Hamza),

⁽¹⁾ The fruit may be round or oblong.

^(*) According to DYMOUK II, p. 555. See, moreover, Zeitschr. Deutsche Morgenland. Gesellerh. vol. 33, p. 613, vol. 38, 21, vol. 40, 439.

[.] ماحب الباقوية and Sahib al-Ydquta صاحب الشاهير 3) Sahib al-Hashdhir ماحب الماقوية

of the liver and spleen. Vinegar and oil correct it. It is worst when fried or unripe (1).

ANOTHER AUTHOR: If split and salted its heat disappears and it causes no apparent damage. But it is a bad aliment, blackens the epidermis, gives a yellow tint to the complexion and generates pimples in the mouth.

IBN Sînā: The old kind is bad but the fresh one is healthier. In IBN Māsargawah's (*) book it is written that it is cold but in reality it is hot and dry in the second degree and calming, except when boiled in vinegar. It neither constiputes nor purges.

COMMENTARY

Bâdhingân is the well-known brinjal or aubergine, the fruit of the egg-plant (Solanum Melongena L.). The Arabian botanists believed that it was unknown to the Greeks, and so did L. LECLERC (I, p. 194) when he attacked the opinion of CLEMENT-MULLET. This author, in a note to his translation of IBN AL-'AWWAM (II, 236) identifies badhingan with Theo-PHRASTUS' (VII, 7) στρύγνος εδώδιμος strychnos edôdimos (" edible nightshade") and Dioscurdes' (IV, 70) στρύχνος κηπαίος (strychnos képaios, "garden-nightshade"). LECLERC agrees with the Arabic physicians who saw in this plant the black nightshade (vide infra article 'inab ath- tha'lab عنب الثعلب). We think, however, that the description of the Greeks may refer to several kinds of nightshade and that the edible variety cannot be anything else than Solanum Melongena, the fruits of which are, black, white or orange-yellow, and may be round, tomato-shaped or oblong. Considering the description of Dioscurides, it is impossible to deny the identity. He says: "It is a shrub,

⁽¹⁾ This paragraph is a quotation from R.E.E.'s book. "On the Utility of Alimenta," the only edition of which is out of print and extremely source (Cairo, 1805 م. ۲۰).

(۱۳۰۵ مار ۱۳۰۵ مارکی دونو مفارها آرازی، مصر ۱۳۰۵)

⁽²⁾ He was the son of the Jewish-Persian physician Masargawaih (see Introduction I. No. 8, p. 10). The quotation is extracted from Qenda Ion Sind, Bulaq edition I, p. 272.

mentions the name bakkrā' as that of a plant and quotes Aβŷ Hanîra in a slightly different way. He adds that the Arabic name is derived from the verb bakhara -, because this herb perfumes the mouth. The Latin name eroilia, easily recognisable, although mutilated, in the Arabic text, furnished us with the proof that bakkra must be a variety of bitter vetch or ers (Vicia Ervillia Willd.) probably a Spanish variety. The common name for bitter vetch in Arabic is karsana - The Greek name is ὄροβος (όrobos). Theope. (VIII, 5, 1) distinguished several kinds, and Diosc. (II, 108) affirmed that it was an excellent food for cattle. The old Latin name of croilia still survives in Spanish alverja and arveja.

See infra Karsana .

Synonyms: Gr.: ὄροβος (órobos); Lat.: ervilis (Pliny), ervum (Virgil) (¹); Ar.: bakhra, bakhra', عُمِنُ وَخُرُاءُ (²); Pers.: mîshûعمره (Nakshna کشنی (Haudjéri), karsana رسمه , marjanak شهره (Naficy) (²), māsh مُنْ (٤) (Schlimmer); Turk.: qara purchaŋ قره و درجاق (Samy); Eng.: bitter vetch, ers.; Fr.: ers, ervillier; Germ.: Kamellinse, Linsenwicke, Erwenwicke, Wuerfelerwe.

133. Bådhingån باذنجان, Egg-Plant (Solanum Melongena L.). (Lecl. No. 227).

It is a Persian name; the plant is called in Arabic al-anab الأنب al-maghd الأنب al-hadag الأنب

AR-RAZI: It is good for a stomach that rejects food all the time, but bad to the head and the eyes, because it generates bluck-bited blood in small quantities. It opens obstructions

⁽¹⁾ See I, Sargeaunt, The Trees, Shrube and Plants of Virgil. (Oxford, 1920) p. 42.

^(*) For other Arabic names see Issa, p. 188, No. 18.

⁽³⁾ According to the Persian dictionaries marjamak is a name of the lentil.

⁽⁴⁾ At the same time the name for Phaseolus Mungo, Vicia sinensis and nilalica (Issa).

Dioscurides is likely to be Vicia Cracca L. Pliny (XXI, 99) affirms that the aphace is a perpendicular shrub, not a creeper. It is possible that ἄραχος (arakos) is a variety of ἀφάκη (apháké). The remark of Dioscurides that the ἀφάκη is common in cultivated fields speaks in favour of Vicia Cracca which is a very common, though obnoxious, weed in the fields.

The Arabic authors do not mention the name biga, except IB. who discusses some medical properties of the plant (1). Loew collected many etymological terms concerning the genus Vicia.

See above, paragraph 63 (ĀRÂQÛS الأقوس, p. 157 foll.).

Synonyms · Gr.: ἀφάκη (αρλάκθ, ΤΗΕΟΡΗ., DIOSC.), βικίον (bikion, Galen); Lat.: aphace, vicia (Pliny); Ar.: bîqa, bîqâ (bikion, Galen); Lat.: aphace, vicia (Pliny); Ar.: bîqa, bîqâ (Dozy, Loew), biqiya القد (ISA), bâqiya القد (Vullers, Dozy, Loew), dandarân نقد (ISA); Pers.: khullar خرجة (Vullers, Nafioy); Turk: purchâq الورجة (Avni), burchâq الارجة (Samy, Handjéri, Vullers I, 714); Eng.: tufted vetch, cracca; Fr.: vesce craque, nois à crapaud, vesce sauvage, vesceron; Germ. · Vogelwicke.

132. Bakhra غُرة , A Variety of Bitter Vetch. (Vicia Ervillia Willd).

(Lecl. missing).

It is called in the foreign language (2) arfiling ارفيليه (3).

ABO HANTFA: Its herb and seeds are like those of bitter vetch (kashna كَنْتُك). Cattle which feed on it grow fat. It grows in smooth places.

COMMENTARY

The name bakhra is missing from nearly all the dictionaries and IB. also omitted it. Tâg-al-'Arâs العرف" (vol. III, p. 32)

⁽¹⁾ Ibs al-'Ausdon does not mention the tufted vetch because it is a weed and not a cultivated plant.

⁽³⁾ Latin or Spanish.

^(*) This name is mutilated in MS. T. as well as in G. It might be read arfiligate and might be a diminutive evolicle, modern Spanish arcejona.

"servant's head," and this accords better with the fruit-bulb than with the seeds of a Nymphaea, e.g. Lotus; Achundow (p. 328) is in favour of Nelumbium. The Persian and Hindustani dictionaries do not give any information.

131. Bîqa يقة , Tufted Vetch (Vicia Cracca L.).

(Lecl. No. 393, Bîqiya بيقية).

DIOSO. II (148): 'Aqien (aphabé) grows in cultivated lands; it is higher than the lentil plant and has thin leaves and strong twigs. Its fruit-husks are bigger than those of the lentils and contain three or four seeds each, which are blacker and smaller than lentils. If eaten cooked and pounded like lentils it stops the excess of flow of matter to the stomach and bowels.

Galen VI (XI, 843): The faculty of this seed is astringent; its heat (ing power) is moderate, but it is more indigestible than lentils.

THE SAME in his Book on Aliments (1): It is of bad, blackbile chyme, like lentils except that it has no such residues as the lentil.

COMMENTARY

The spelling biquya ½ in the text of IB. is likely to be more correct than the biqa ½ in the text of IB. is likely to be more correct than the biqa ½ in the text of IB. is likely to be more correct than the biqa in the factor (bikion), a name which seems to have been unknown to Theophratus and Dioscurides. It is probably derived from the Latin vicia and is mentioned by Galen as being in use in his time in Asia Minor, while the Attic name was ½ zzoς (árakos) or χύαμος (kýamos). The description given by Theophrastus of ἀρ żχη (aphákê) agrees best with the tare (Vicia sativa var. angustifolia Alef.), while that of

⁽¹⁾ B:nik I, chapter 36 (ed. Kashn, vol. VI, p. 550-1): the quotation is not literal.

(5) In Nyriac it is called big6 %7-1. and al-Ghāfiqi's spelling may be derived from this word (see Loow II, 490).

130. Bîrûr يود (for Biyârûn أيود ?) (Root of Nymphaea Lotus L.?).

(Lecl. No. 396). See above No. 129 (p. 271).

QUSTÂ IRN LÔQÂ: It is a plant which grows in stagnant water and rises upwards on the surface in the shape of a mushroom. It has a red bark coming out from the soil like a mushroom, which is eaten boiled.

IBN RIDWAN: It is the root of the water-lily (bashnon) which grows in the Nile.

COMMENTARY

The name as well as the real kind of this drug are uncertain. The description given by the Syriac author Qusta b. Lûqå (see Introduction II, No. 21, p. 14) applies more likely to the dry fruit-cone of Nelumbium speciosum Willd. (see supra-No. 128 and intra No. 221) which has some likeness to a brown mushroom. However, the Egyptian physicians 'ALT B. RIDWAN (XIth cent. A.D.), IBN AL-BAFTÂR (XIIIth cent. A.D.) and DâwûD AL-ANTAKT (XVIth cent. A.D.) tell us that it is the bulbous root of Nymphaea Lotus L. (bashnin) (see suprâ No. 129). Dawfo (1, p. 139, 1, 18) says: "Its root is about the size of a rape (salgam, Brassica napus L.); the Egyptians call it biyaran The same name is mentioned by IB. (I, 133). The etymology of this name is unknown; it sounds like Greek (perhaps meaning (piaron) from mian (piar) fat, fatty substance ?): The Ancient Greek term for the bulb of Nymphaea Lctus is κόρσιον (korsion) according to Theophratus who concisely describes the bulb, and to Strabo (chap. 823) and Diodorus (chap. X, 1, I) who mention it cursorily as an aliment. The latter author gives it the name of *ppgaiov (korsaion).

Moreover, we find in the book of Abt Manste (p. 211) the mention of the seed of a Nymphaea (nilitary) which he calls râs-i-khâdum (khâdim?) منادم, a drug taken for intestinal diseases and menorrhegia. The meaning of the name is

The Arabic name bashnin is probably a corruption of the Coptic rugwyeu = [(+the article). IB. speaks of the two varieties of the plant, the bashnin khindri & or or "pig's lotus" and the "Arabian" lotus. According to Sicken-Berger (Arzn., p. 35) the latter is Nymphaea cosrulea Sav. There exist several varieties of this plant in India such as the red and pink kinds.

Amongst the later Arabian authors Dâwûn alone writes a longer paragraph on bashuân. He gives a good description of the plant and mentions its medical actions saying they are similar to those of lânûfar أينوفر (1), viz, tonic, stomachic, aphrodisiac, etc.

I. Keiner gives many pictures of Nymphaea Lotus and carulea from Ancient Egyptian monuments (2).

The dried flowers of Nymphaea Lotus L. are sold in the Cairo drug-bazaars under the names of bashnin khanziri بيشين ختر يحترين و شائدان النار التراث التراث التراث التراث ("brides of the Nile"), nilitar نيلوفر and wifar فوفر (Ducros, No. 38, p. 21).

Synonyms: Gr.: λωτός (lôtós, Theophr.), λωτός λιγύπτιος (lôtós Aigyptios, Diosc., Galen); (the bulb): χόρσιον (korsion, Theophr.); Lat.: lotus Aegypti; Ar.: bashnin ייייל, gulgulan masri יייל בעלי בעלי בעלי (Issa), nilúfar, linúfar الموفر ولينو فر (Modern Egypt). For other names see Ducros (suprá). Pers.: nilúfar, nilúfar, nilúfar) (Abů Mansûr, Schlimmer); Turk.: same name ('Avni, Samy) and its mutilations like alufar, munafer, etc. (Honige., p. 404-5); Eng.: white water-lily, Egyptian lotus; Fr.: nénuphar blane, lys des étangs, lotus égyptien; Germ.: Wasserlilie, Seerose, aegyptischer Lotus.

Also see following.

⁽²⁾ An Egyptian vernacular mutilation of nihilar بأوفر, a Persian term for another eart of water-lily (Nymphaes coerules Ean.).

^(*) In Annales du Service des Antiquités d'Egypte, tôme XXVIII (1928) pp. 38-42, and Reme de l'Egypte Ancienne tôme II (1929) pp. 232-253.

baqlasi معريقله عصريقله عمريقله عمريقله المعرية (Samy); Eng.: peltated water-lily, Indian lotus, nelumbo, Pythagorean bean (the fruit); Fr.: nelumbo, fève d'Egypte (the fruit); Germ.: Indischer Lotus, Padma.

129. Bashnin المُشَارِي , Egyptian Water-Lily, Lotus (Nymphacea lotus L.).

(Lecl. No. 292). See below No. 130.

COMMENTARY

The nymphace Nymphace Lotus L. is a typical Egyptian plant very frequently represented on the monuments since the Old Empire. It is distinguished from the white flowered kind of Nelumbium by differences in the blossoms, leaves, fruits and roots. The above description given by Dioscurides is extracted from the much more correct and detailed description of Theoperature (IV, chap. 8). He says that the plant is frequent in the Euphrates and that the quince-shaped root, called répore (birsion) is white inside but changes to the colour of the yolk of eggs when boiled or grilled.

⁽⁴⁾ This phrase is missing from Dioscurides' text; it is full of errors and must be a copylist's interpolation.

^(*) In the Arabic text, sha'e شر ها, and designates "hair " or " crocus." Dioscunides's taxs reads χρ(νον "lily," and this comparison is the only correct one.

Its nourishing power is slight but good; it causes the growth of flaccid flesh and sound blood, slightly capable of heat or excitement.

COMMENTARY

This drug is the seed of the hymphaeacea Nelumbium specienum Willd. (Nelumbo nuficera or Nymphaea Nelumbo L.). It is discussed suprâ under No. 103 Awsîn الرسيم (Awsapîd) which is the white-flowered variety of the (rose-coloured) Nelumbo, and under No. 221 where we identified the name of gubrus Cost, with its fruit. See below No. 129 and No. 130 (p. 278).

The Greek name has the meaning of "Egyptian bean," and the Arabic one, that of "Coptic bean." The flowers, the leaves and the characteristic conical fruits are frequently represented on monuments and objects of the late periods of Ancient Egypt. The plant was probably imported by the Persians (VIth century B.C.). Its native land seems to be East-India; the flowers called pudma or kamala played an important part in the ceremonies of the Ancient Hindus (Dymoek 1, 71). The white and the rose-coloured varieties are in existence in India (Roxburgh, Flora Indica, Calcutta, 1874, p. 450) as well as in Egypt, but in the latter land in gardens only. It is said to have disappeared from the Nile Valley as a wild plant since the VIth century A.D.

SYNONYMS: Gr.: χίσμος Αἰγύπτιος (kýamos Aigyptios, ΤΗΕΟΓΕ., DIOCS., GALEN); Lat.: faba Aegyptia (Scribonius Laigus, Celsus), lotus Aegypti (Pliny); Ar.: bâqillā qibtî ليتوفر (نيلوفر) fûl misrî بأقل قبطى (1), lînûtâr (nûlûfar) hindî (الله قبطى (Dñwôd), gâmisa بأقل قبطى (Egypt, IB., to-day unknown name); Pers.: baqillā-i-qibti بأقل قبطى (Abô Mansôb), saʿleh bâqillā المناسة (Schillimmer, p. 402); Turk.: nûlâfar hindî (ʿAvni); Misir

^{(&#}x27;) This name given by Issa is doubtful; he gives for the two betanical synonyms of the plant (Nelsambium spec. and Nymphusa Nelsambo) different names, while Schweinf, and Sharaf left the plant out of their dictionaries.

Mansûr.), kálúsak كالوسك, kawisk بَوَّ jirjír بَكِ (Handjéri, Stringass); Turk.: baqla أَنِيَّة Eng.: bean, field-bean, gardenbean; Fr.: fève, fève-des-marais; Germ.: Gemeine Bohne, Saubohne.

128. Bâqillā Qibtî إقلَّ قبطى, Egyptian Lotus (Nelumbiam speciosum Willd).

(Lecl. No. 225). See our Nos. 103 and 221.

Diosc. II (106): It grows abundantly in Egypt as well as in Asia and Cilicia, and flourishes in stagnant waters. Its leaves are large like wings (1), its stem is one cubit high and is as thick as a finger. The colour of its flowers is red like that of roses. In their volume they are about the size of a poppyblossom(2). With the appearance of the leaves there are formed gousses like carobs resembling a hornet's net, and in them are the small beans. Their position rises over the places where there are no grains, like water-bubbles. It (the bean) is called κιδώριον (kibôrion) and κιδώτιον (kibôtion) (3), i.e. "the place in a ball of clay," because those who sow it put it into a lump of clay and throw it in the water. Its root is as thick as canes. It is eaten cooked or raw. It is called ordeds (4). This. kind of bean is eaten fresh; when it dries it becomes black. It is smaller (5) than the common bean. Its faculty is astringent, and is good for the stomach.

AGRICULTURE: It grows in stagnant waters in Egypt. Its leaves are slightly more variegated than those of the lemontree, and its twigs are weak, tortuous and knotty (*). Its root is thicker and (fol. 18 r) rounder than the roots of the sugar-cane.

⁽⁴⁾ The original text of Diose reads "like a "έτασος" (pekasos), é.e. a broad-brim-med hat as worn by Ancient Grock shapherds and hunters.

^(*) Diosc. reads " the double of a poppy blossom,"

^(*) Namics of a seed-vessel.

⁽⁴⁾ The text of Diose, reads xoloxár ov (kolokásion); see Commentary

^(*) Diosc. says " higger."

^(*) This description is not quite correct, perhaps confused through a copyist's mistake.

with its peel, it checks diarrhoea caused by ulceration in the gut. Young beans are worse to the stomach than old ones.

Another Author: Its chyme is not bad and does not cause obstructions, as it produces a good laxation of the bowel. Abuse of its consumption, however, causes heaviness in the head, weakens the intelligence and breeds worry and sorrow. It gives the sensation of general pains all over the body (breaking of bones). The fresh ones, in particular, cause itch.

COMMENTARY

Bâqilâ or bâqillâ is the Arabic name of the leguminosa Vicia faba L. which is native of Persia and North Africa, but now universally cultivated. It must have grown in Egypt from the earliest period — for samples were found in prehistoric tombs — and until now it is one of the staple articles of diet amongst the poorer classes. It is the commonest article of food in Oriental lands. In the towns of Egypt, e.g., the majority of the population are in the babit of eating beans at breakfast with oil and vinegar in the hollow of a loaf of bread. For this purpose the beans (called fâl die in Egypt and Palestine) are boiled and sold by ambulating dealers, or prepared in special restaurants during the nights in order that the dish may be ready in the morning (2).

⁽⁷⁾ It is interesting to mention here that the names actually used of the two most someonly exten dishes of prepared beaus in our days, are Ancient Egyptian in origin, used in Arabic through Capita forms, viz. **

⁽posiury)=TIECOTPM منازة (bosius) meaning "cooked beans" and \$200 TIEC " براسي (bosius) meaning " cooked beans " and \$200 TIEC " براسي " medammis " " huried " in reference to the mode of cooking them. The beans are packed in lig carthenware jars (gidta فالمرادم) which are closed and buried in hot ashes and laft to cook slowly. There is also the fiftr medammis فالمرادم " or buried pastry " which is baked in the same way.

⁽⁵⁾ This name is Aramaic (fâld, Lorw II, 501 foll.).

The juice is used for corroding warts and polypi (Duoros, No. 41, p. 23).

י אילני. (modern) מי מי מי אילני. (modern): Semen Anacardii orientalis; Ar.: balâdhur אילני. balader (mod. Egypt, Dâwûp, Ducros), habb al-fahm בּי الْفَهِ الْفَلْمِ (same), habb al-qalb جُولُ الْفَلْمِ (1), gawz or thamr kâbulâ, balaqalb عَنْ اللهُ وَاللهُ (1); Pers. and Turk.: balâdhur and anâqârdl. فَهُولُ اللهُ إِنْ اللهُ اللهُ إِنْ اللهُ الل

137. Baqilla أقلى (Garden-) Bean (Vicia faba L.). (Leol. No. 224).

GALEN VII (XII, 49): It is moderately drying and laxative. There is little laxative power in the pulp of the bean, but its bark is of a constipating rather than laxative faculty. For this reason some physicians cook the bean with its bark and administer it to those who suffer from dysentery, diarrhoea or vomiting. The bean causes more flatulence than any other food and is one of the most indigestible; but it eases the expectoration of phlegm from the chest and lungs and is useful for hot swellings in the form of compresses. When cooked with pigs' fat it is useful for gout.

THE SAME in his De Alimentis (1, I, chap. 19, Kuehn VI, p. 529): Beans are useful and do not lose the faculty of producing flatulence with cooking, in the same way as barley.

Diosc. II, (105): Kózpos (Kýamos). It gives rise to flatulence and causes ugly and false dreams. It increases the flesh of the body, and when cooked in vinegar and water and eaten

⁽¹⁾ I.e. heart-shaped, cordiform, as are the fruits; translation of the name annountia. For more Arabic names are Issa, p. 166.

⁽²⁾ Le. nut or fruit from Kābul (Afghānistān),

and woollen clothes (Honga, II, 228). From this use the English name "marking-nut" is derived. It never was a medicinal drug in the West, but was so used, and still is, in the East. It was sometimes confused with the Cashew-nut. Anacardium occidentale L. which is of American origin, but now cultivated in East India. The active caustic substance is called cardol.

Oriental authors, such as Abu Mansûr, Al-Bîrûnî and Irn Gazla, do not give any more information about it than Irn Sînî. Al-Idrîsî (p. 45, No. 88), gives the Indian name auturfura (mutilation of Sanskrit aruskhara?), a Persian name jûnûbûs بالمنافق المنافق المنا

The best Arabian description of the plant and fruit is due to Dâwûd al-Antâri. He says (1, p. 164, 1. 10 foll.): "It is the grain of intelligence; its fruit is called Auscardia in Greek. It grows on an Indian tree which is lofty like a walnut-tree, has broad leaves, grey and lanky and of a sharp actid smell. If a person sleeps under this tree he becomes intoxicated and perhaps lothargic (1). Its fruit is of the size of a chestnut; at its end is a hard stalk. Its bark is blackish and folded over a spongy tissue which is filled with a honey-like fluid; this is its honey. Underneath it is a (second) bark enclosing a kernel which is like an almond and is sweet." He then speaks of its medical properties.

The fruits are sold in our days in the drug-bazaars of Cairo under the name of baldder خب الفهم or habb el-fahm.

^(*) The same is said of several tropical trees, particularly of Hippomase Mancinella. L. (West Indies, Control America).

almond-shaped and black in colour. In its interior is a white grain resembling an almond, inside a peel which is covered with a reddish-black honey.

ANOTHER AUTHOR: It is imported from China (1) and grows also in Sicily on the volcano (2).

Inn Sinâ(3): Its interior is like that of an almond, sweet and innocuous. Its honey is viscous and smelly. It causes ulcers and swelling, burns the blood and the humours. It is useful for cold diseases and deranged memory, but creates evil thoughts and gives rise to melancholy. It is a poison.

Another Author: The pulp attenuates its harmful effect. Some people eat it with nuts and sugar without it causing them any harm.

COMMENTARY

The marking-nut is the fruit of the anacardiacea Semecarmus Anacardium L. Its Persian-Arabic name, baladhur, is derived from Sanscrit bhallataka: the Hindustani names of to-day. bhela and bhilawa (DYMOCK I, 389) are remainders of this word. It is an East-Indian drug and was known to the Greeks. The great Arab historian Ahmad B. Yahya al-Baladhuri احمد بن محى (IXth century A.D.), friend and teacher of several Caliphs in Baghdad, was said to have died from the use of marking-nut. This drug was thought to increase the acuity of the mind and intelligence, and one of its Arabic names is habb al-fahm حب الفهم. "grains of understanding." A Jewish legend ascribes the greatness and superiority of intelligence of the philosopher and physician Maimonides, to the constant taking of balddhur (Loew 1.203)! The juice of the flattened cordate nuts when exposed to the air becomes a black corrosive fluid, used for diseases of the skin (ringworm) and as an indelible ink for marking linen

⁽¹⁾ This is probably a copyist's blunder for "India."

^(*) This remark, attributed by EB. to the Tunisian Is-maq m, Tunain, is erroneous all the marking-nut kinds are of tropical oxigin.

^(*) Odnán, Bůlaq Edition, 1 p. 267, 1. 15 foll.

says that it resembles the ginger-fruit. ABÛ MUÂDH إبرماذًا says: it has been reported to me that it is the marsh-mallow (khatm²); but this is not true. The druggists of this country (2) say that it is angêr Adâm أنجير أدام which is mentioned before" (3).

IBN GAZLA and Idri's simply repeat the sayings of AL-KHÖZÎ (probably through AR-RÂZÎ). Only DÂWÔD, a contemporary of Garcia da Orta, gives a better description of the drug (I, 164), wiz:—

"Bul is the Indian cucumber, a plant which extends its branches and produces long horns containing grains which are softer than Egyptian millet. The fruit is black outside and has a pointed end. It changes colour from white to yellow, is hot and dry in the second degree — its dry compound in the first—is useful for diseases of the phlegm like colics and facial paralysis, for hemorrhoids, winds, deterioration of the humours, and also for impotence. It cures sufferers from yellow bile. Its corrective is coriander, taken in the dose of one mithqûl. We do not know of any substitute for it."

SYNONYMS: Ar.: bul كا., qithd' al-Hind ألحنة , safargal hindî شاء الحدية ; Pers.: bil الحرية , abul كا. (Vullers I, 253); Turk.: missing from dictionaries; Eng.: Indian bael, bael-tree, (fruit) Bengal quince; Fr.: bel indien, bela indien; Germ.: Baelbaum, Belfrucht, (fructus Belae).

126. Balâdhur ילכוֹ, Marking- (Marsh-) nut (-tree), (Seme-carpus Anacardium L.).

(Lecl. No. 347).

IBN GULGUL: It grows in India and Sind (4). It is a fruit between a pistachio-nut and a chestnut, nearer to the first,

⁽¹⁾ An otherwise unknown Arabic scholar, repeatedly mentioned by Bîrûwî.

^(*) I.e. (Hazaa (actually Afghanistân) where Bizôni lived at the court of the Sultans Mahmud and Mac'ul.

⁽³⁾ We were not able to identify this Persian name, the meaning of which is "Adam's grape."

⁽⁴⁾ The lower valley and delta of the river Indus.

COMMENTARY

The rutacea Aegle marmelos Corr. is a sacred tree amongst the Hindus, on account of the three-lobed leaves which represent the triad of Brahma, Shiva and Vishnu. It is, as Roxburgh (1) says, "a pretty large tree, native of the mountainous parts of the coasts of Coromandel." The fruit is called vilva (Sanscrit) and bilva (Hindi), from which word the Arabic-Persian name bul or bil is derived. The fruit is "large, almost spherical, smooth, with a hard shell containing from ten to fifteen cells; the cells contain, besides the seeds, a large quantity of an exceedingly tenacious, transparent liquid which becomes very hard on drying but remains transparent." In commerce the article is sold entire or in dried slices (DYMOCK I, 279), having a smooth brown shell, enclosing a hard orange-brown resinous pulp. The diameter of the fruit is 2 to 4 inches and the shape spherical or flattened, ovoid or pyriform.

The drug was known to the Persian and Arabic physicians as far back as the XIth century A.D. (2). The first European physician who described it (under the name of "marmelos de Bergala") was Garcia da Orta, the Portuguese scholar of the XVIth century. He recommended it as a remedy for dysentery; its principal constituent is mucilage with traces of tannin (3).

Bîrûnî gives a short paragraph containing interesting remarks. After quoting Sahâr Bokht משלע, an early Syriac physician, and Al-Krûzi he continues:—

"In the book Chalâr-nâm (*) it is written that bul is like the capre-fruit and that it is bitter and astringent. In Mâsa

⁽¹⁾ W. ROXBUBGH, Flora Indica. Calcutta, 1874, p. 428.

⁽²⁾ ABU MARSUR, however, does not mention it.

⁽²⁾ H. G. GREENER, Materia Medica (fourth edition, London, 1924), p. 100. A picture of the fruit (after Holmes) on p. 99. Garcia da Oria, 58th Colleguy.

⁽⁴⁾ This Persian word, the meaning of which is "Four Names" designates a polygiot dictionary of technical terms in four languages (Greek, Syriac, Persian and Arabio) which was in use in Central Asia about 1000 a.p. Its Syriac title was puslag abouting "(explanation of names") and is mentioned by Birthrif and Imp Ast Usarra's.

first degree, dry in the second. The kernel of their fruit is sweet like hazel-nuts." Then follows an exposition of the medical qualities of the belleric myrobalan.

Dâwûn (I, p. 172) says: "Balîlag is the fruit of a tree, not identical with halîlag مللج (Terminalia chebula), though both have the size and shape of an olive—but it is somewhat bigger. Its habitat is the land of India. It is gathered in the month of Tammûz عوز (October) and plucked with the stones but only the pulp is taken. The best kind is the yellow, soft and smooth. It is cold in the second and dry in the third degree. If regularly taken at breakfast with sugar, it sharpens the sight, stops headaches and checks vapours.

SYNONYMS: Gr.: Μυροβάλανοι (myrobálanzi); Lat.: myrobalani (both meaning Moringa aptera Gaertn.); Ar.: balilag : לְּלֵיבׁ (Abû Mansûr); Turk.: beble לְּלִי Eng.: beleric myrobalans; Fr.: myrobalans bellárics; Germ.: belerische Myrobalanen (the tree: bellerischer Catappenbaum); Copt.: corpor, μετροβαλαιος.

125. Bul J., Bacl-fruit (Aegle marmelos Corr.).

(Lecl. No. 346).

Al-Khûzî (1): It is "the Indian cucumber" (al-qithd' al-hindî القناء المندى) like the capre cucumber (2); it is bitter, hot and dry in the second degree, astringent, confining and fortifying the bowels and useful for "cold" diseases.

IBN 'IMRÂN: It is a black pointed grain resembling, in shape, the Egyptian millet grain (dhura (Liu and interior there is an oleaginous pulp which is used in medicine, and which is imported from India. It is useful in paralysis and for gout; it is also an aphrodisiac.

⁽¹) Ar-Râzi quotes frequently al-Khûz أخوز , probably physicians of the early medical school in Gunti-Shâpûr in Khûzistân (S. W. Persia).

^(?) The identification of this name A.I. is is not possible, but the explanation thereof is to be found infed in Blackf's article.

triphala, the "three-fruit-compound" (embelic, belleric and chebulic myrobolans) the balilag was in great use with the Indians. Its Persian-Arabic name is derived from Sanscrit vibhitala. Medically, it was very widely used during the Middle Ages, in the Orient as well as in the Occident. It was a reputed remedy for all diseases of the bowels, as well as for eye-diseases. The 'Abbasid Caliphs of Baghdad received part of the tribute from the Province of Khorassân (East Persia) in the form of supplies of myrobalans.

The fruits resemble small plums, are oily, contain a hard stone and are of different forms and sizes. The young fruits purge, and the ripe ones are astringent, because they contain a great amount of tannic acid (from 25 to 46 %), and this is the only reason of their use in medicine. In our times they are used only for tanning. A century ago they were in use as an official drug under the name of Myrobalani bellericae. They are missing in Ducross' enumeration of Cairo bazaar-

· drugs (1).

Among the Arabic physicians, IBN GAZLA does not give an original account, and Bîrônî is very brief. All he says is that the belleric myrobalans are more round in shape, the chebulic more oblong.

^(*) Their use seems to have been early abandoned in Europe, as Pomet writes in hig History of Drugs (Eng. translation, London, 1712, vol. I. p. 142): "It is of little importance to draw your attention to their choice, since they are good for little or nothing." (*) Two gaps in the MS.

SYNONYMS: Ar.: baqqam, ימח מורף (בור ביינוי) ביין היינוי (Pers.: baqqam, bakam ביין, dâr-parniyân בּין, baqqam-i-qirmiz בּין (Schlimmer), dâr-bhâl ביין (Handjéri) (לין); Turk.: baqâm ביין (Handjéri, Sumy); Eng.: sappan-wood, sappan, buckum-wood, (Brazil-wood), Indian dye-wood; Fr.: bois de sapan, bois de brésil, brésillet des Indes; Germ.: Sappanholz, indisches Brasilholz, Rotholz.

124. Balîlag بللج, Beleric Myrobalan (Terminalia bellerica Roxb).

(Lecl. No. 338).

ISHÂQ B. 'IMRÂN: It is an Indian green fruit; when compressed and dried, it becomes yellow; its taste is bitter and astringent.

Another: It resembles the black myrobalan (*), has a smooth peel, is soft, and its astringency is palatable though with some bitterness. It is a mild cathartic for black bile.

IBN Sìnâ: No other drug is more tanning to the stomach. It may confine the bowels, but it is usually a purgative.

AL-MAGÛSÎ (3): Its faculty is weaker than that of the cubclic myrobalan (amlag ملح, Phyllantus emblica L.).

COMMENTARY

Belleric myrobalans are the fruit of the combretacea Terminalia bellerica Roxb., an Indian drug which was unknown to the early Greek physicians, but later became known to the Byzantines. The μυροβάλανος (myrobálanos) which was imported from the East was then confused with the βάλανος μυρεψική (bálanos myrepsiké, Moringa pterygosperma Gaertn.), the benoil-plant (see above No. 118). As a constituent of the

⁽¹⁾ This name is probably Hindustani (* arrow-wood *).

^(*) IB. (I. 110, line 9): "the yellow myrobalan."
(*) See Introduction, p. 17, No. 2 f.

the colcocynths, like squirting encumbers ('alqam والله); they are not edible. They plant it (the sappan-tree) and do not cut it until the arrival of the customer. The stock of merchandise is given in exchange for (human) weight, which means that the buyer chooses three men at will and the salesman two. Then they cling all together to the end of the Roman balance (qarastin فرسطون) until the other end, to which is suspended the sappan-wood, is raised. The weight raised by them is the one needed."

He then writes about different kinds of Indian weights and continues:—

"As-Sarî ar-Rafî السرى الرفا says: Al-baqqam is al-'andam but the 'andam, which is well-known to the druggists, is the dragon-tree (dam al-akhawain إن الأخون Dracaena Draco L.) known as al-qativi الفاطر It is no wonder that the juice which flows from it is used as drops for the eye."

The above sentence is quoted from Abû Hanîfa. Bîrûnî then continues:—

"The inhabitants of the (Indian) coasts say that the sappan-wood has two colours: one kind is imported from Safin "" (1) and is known as "black-backed," and the other is imported from Lâmrî and is known as "white-backed;" this gives a purer red (dye-stuff)."

Identif (I, p. 66) gives the Indian name kukuma by, which we cannot find mentioned anywhere. But Dawon (I, 158) cites the same name under the form al-kakram (), next to the term bikhumar be. He continues: "Its fruits are round, greenish at first, later on red, and when ripe become black and sweet; they are eaten like grapes. If macerated for two or three nights they swell, and their blackness is lightened".

For the origin of the European name sappan, see Yule, Hobson-Jobson (p. 794); it is derived from Malay sapang.

⁽¹⁾ This may be a mis-spelling for Sauj منت = Champa, formerly a great kingdom in Indo-China (Coshinshina).

IBN RIDWAN: It brings about the cicatrization of the wounds, dries ulcers (fol. 17 v.) and checks the flow of blood.

COMMENTARY

The leguminosa Caesalpinia Sappan L. is a tropical tree indigenous to India and the Malay Archipelago. It was unknown to the Greeks. Its Persian and Arabic name baqqum is derived from Sanscript pattanga. For details concerning this orange-red wood and its use, see Dymock (I, 500-1). Although its habitat is in India, it was formerly called Brazil-wood, and as an official drug Lignum Brasile (1).

Among Islamic authors, it was—needless to say—only AL-Birûni who wrote the most interesting paragraph on sappan-wood. He begins thus: "Baqqam, in Persian dâr-barniyân (²), in Khwârizmian (³) banjank בּׁבִּוֹלֵי Hamza (⁴) says (baqqam) is the Arabicised name fakam [ˆs̄], i.e dâr-barniyân. Its origin is from the Island of Lâmrî (⁵); it is imported thence together with bamboo (khaizurân رُحْزِرُانُ). Its leaves are like those of the rue. It carries fruits in the manner of the carob-trees or

⁽⁴⁾ This name is not derived from the country, Brazil; it was used in Europe in the Middle Ages, long before the discovery of America I is is derived from the root bressels (Germ.), brazil (Perucuyal), brazil (Spanish), designating the red colour of the fire for grilling. It was transferred to the red wood, and later on to the newly inscovered land which furnished, difer East India, the greatest amount of dyo-woods (Littic, Dictionsaire de la langue française, vol. I, Paris, 1873, p. 416). Compare also W. HEYD, Dictions die Commerce du Lecent as Moges Age, Stattgart, 1878, vol. II, p. 587 fol. 80, on the conteary, the name of the land Brazil is derived from that of the wood. But to-day the name of Brazil rood is mustly applied to the heart-wood of Caesalpinios Draziliessis I.

^(*) Dár in Persian, is "wood," paraigda a fine China silk (moiré); The sappan-wood has its watered design.

^(*) This was AL-Birther's mother tongue, a nearly unknown Iranian dialect.

^(*) Harza al-Isvanant, a famous Persian historian and philologist (d. ab. 366 A.E. 966 A.D.); he was wont to discuss Persian and Indian words that found their way into Arabic.

⁽f) This island is montioned, more than five centuries after At-Birûxt, by Abu'l Fadl المراقبة إلى المستخدم إلى المستخدم المراقبة المراقبة

Inn Golgul: The tree and its leaves are like myrtle; so are its grains. Its wood is yellow, hard and astringent; it confines the bowels.

COMMENTARY

The name bags is derived from Greek pyzos. It is the buxacea Buxus sempervirens L., well known to Theophrastus who mentions it more than twenty times in his Enquiry into Plants. Since Antiquity the wood was much in use for the manufacture of boxes (1) and cups. Apart from IB., most of the Arabic authors give no interesting reference to this plant or to its medical uses. Dawad (I, 158) says that the best kind has very yellow wood and grows in "his land" (Antioch) along the coasts of Asia Minor. He also says that it is good for ulcers of the mouth and that the use of a comb manufactured from box-wood strengthens the hair. Some years ago the leaves were used as an official drug (vide Pharmacopée française, official edition, Paris 1866, p. 40).

; بقس Synonyms: Gr.: مناه (pyxos); Let.: buxus; Ar.: bags بقس Pers.: shimshdd مُعمَّاد (the tree), shimshdr مُعمَّاد (the springs) (عمَّاد shemshir: مَعَمَّاد (Kamy), shemshir agaji مَعَمَّاد (Kamy), jemshir مَعَمَّد (Handjéri); box-tree, box; Fr.: buis; Germ.: Buchsbaum.

123. Baqqam p^{*}, Sappan-wood, (Caesalpinia Sappan L.). (Lecl. No. 314).

ABÛ HANÎFA: It is the wood of a lofty tree, the leaves of which are like those of the green almond-tree. Its stem. and branches are red. It grows in India and East Africa. (Zang É.). In decoction it is used as a dye.

⁽¹⁾ The name "box " is perhaps derived from pyxis-busus.

⁽⁵⁾ It is evident that these two similar names are often confounded, in MSS, and: prints. We follow Vullers, Strengels, Hamprica, Tie (IV, 111), Lorw (I, 318). SURLIMMER (P. 95) and others.

(βάλανοι) (Sardianai (bálanoi) (1) and λόπιμα (lópima) (3) and καστανίαι (kastaniai) (3) and μότα (mota) (4) and "acorns of the planet Jupiter (5)," i.e. the chestnut (shāh-ballāt شاه بلوط) are also astringent like the acorn.

COMMENTARY

Ballût الرحا: is the Arabic name for different kinds of oaktrees and for their fruit (acorn). The Greeks (Theophrastus) knew in their time about a dozen different species and varieties of oak-tree. They also understood the astringent action of their bark and fruit. The species which agrees best, according to Fraas, with Dioscurides' description is the holm or holly-oak Quercus ilex L. (synonym Q. ballota Desf.).

AL-Birûnî very often quotes Greek authors, among others Theophrastus and Plato. Idrisî (p. 46) gives several Persian and Syriac names which are otherwise unknown.

Synonyms: Gr.: ὁρῦς (drys), φηγός (phégós), ποῖνος (prênos);
Lat.: quercus, ilex; Ar.: ballát لم بلوط (Śria,) (Śyria), 'a/sînag
(ʿIrāq, Dāwūd), thamarat al-fu ʾād عُفسِنِيج
(ʿEgypt, Dāwūd);
Pers.: sindiyān عُمْنِهُ الْفَاجِّةُ (ˈTurk.: meshe agaji عَبْدُ الْفَاجِّةُ ('Avni),
pelid agaji الله عَلَيْهُ (Handjēri); Eng.: evergreen oak, holm,
holly-oak, ballota-oak; Fr.: chêne vert, yeuse, ballote; Germ.:
Steineiche.

122. Baqs المُسن , Box-tree (Buxus sempervirens L.). (Leol. No. 315).

Its name in Syria is shimshâd λίως, and in Greek πυξίς (pypris) (*).

⁽⁴⁾ The Spanish obstant (of Castanea vesca Gaert). All the following are different names for the chestant.

^(*) Le. "easily peeled off " said of nuts which have a skin and not a shell.

⁽ Le. chestauts.

⁽⁴⁾ Morov (moton) is lint for dressing wounds.

^(*) This is the translation of the Greek name Διὸς βάλαγοι (Dios Bálonoi) "accuras of Zena."

 ^(*) This is an error; the Greek name of the box-tree or box-wood is πύξος (pyzos);
 pyzis is a box made of box-wood.

names, and khinjak خنجك (Vullers I, 726); the gum: måst ماست (Abû Mansûb); Turk: termentin, aghaji رَمْنَيْنُ أَغَارِي (Ami, p. 595), shajer-i-butm شَخِرِيطُم (Samy) (1); Eng.: (Chio) terpentine-tree; Fr.: térébinthe; Germ.: Terebinthe, Terpentin-Pistazie.

121. Ballût بلوط Evergreen Oak (Querous ilex L.) (Leel, No. 339).

GALEN XI (XI, 865): All the parts of this tree possess an astringent faculty; but the layer resembling a membrane between the bark and the wood is the most strongly astringent. It is the same with the innermost layer of the bark of the fruit, i.e. the one beneath the bark of the acorn enveloping the pulp, which is called the aril (2). It cures haemoptysis and dysentery. It is mostly used in the form of a decoction. Still more strongly astringent than this latter are the plants called envis (phegós) (3) and = ivos (prinos) (4) which are allied to the species of oak; but we are justified in affirming that they are different in kind.

He says in the Book on Aliments (GALEN VI, 621): The acorn is very nourishing; bread was made from it. In former times people lived on it alone. But its nutritious part is heavy, thick and difficult to digest; chestnuts (shah-ballat are better.

Dioso. I, (106): $\Delta \rho \bar{\nu}_{\zeta}$ (drys); a decoction from its bark, drunk with cow-milk, is useful for the poisons called $\tau \bar{\nu} \bar{\epsilon}_{12} \bar{\nu} \bar{\nu} \bar{\nu}$ (toxikón) (5) and $\bar{\epsilon}_{\gamma \bar{\gamma}} \mu \epsilon_{5} \bar{\nu} \bar{\nu}$ (ephêmeron) (6). The species of oak-tree called $\tau \bar{\rho} \bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu}$, (prinos) is stronger and loftier than the others. It blackens the hair. The tree called $\bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu}$ (phegós) equally belongs to the same species. Those which are called $\Sigma \bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu} \bar{\nu}$

⁽¹⁾ Ingist gives as a Turkish name besetshe 4....; but this word means "violet."

^(*) In the text the Persian word just : it designates the inner rind of a fruit,

^(*) Perhaps Quercus esculus L.

⁽⁴⁾ Probably Querous ilea sur. Suber L.

⁽a) A poison for smearing acrows,

^(*) The mesdow saffron Colchicum parassicum or some other kind of Colchicum.

Among the Arabic medical writers we quote AL-IDRIST because his paragraph on butm is particularly detailed (Istanbûl MS., p. 67 foll) whereas the corresponding section in al-Bîrûnî's drug-book is missing owing to a gap in the Brussa MS.

At first al-Idrisi gives many synonyms for the plant mostly mutilated by the copyist — in Arabio, Greek, Syriac, Berber, Persian, Indian and Turkish. He then continues: "The turpentine-tree is a well-known tree resembling the one called ad-darw الفرح (1). The colour of its leaves is very green and its edible grains resemble those of ad-darw, except that they are oblong and green. This tree has a resin exactly resembling the mastich gum, except that this latter changes its colour. The two resins, mastich and turpentine, are as similar in their characters as their trees are." Al-Idrisi then speaks very lengthily about the medical uses of the turpentine resin and fruit.

Ducros (p. 80 foll). describes the turpentine resin (samgh al-butm صنع البطم) as a bazaar-drug in Cairo. He omits the fruit (habba khadrā حبة خضراء) which is still sold in the drugbazaars of Cairo. Terebinthina Chia or Cypria was formerly an official drug in Europe.

SYNONYMS: Egypt.: ביין היין היין היין האר ("resin"); Heb.: מוט ללנפת, botna; ela; Copt.: conte (resin) (?); Gr.: τέρμινθος, (términthos); τερέβινθος; Lat.: terebinthus (Pliny); Ar.: the tree butm (Maghrib); other names: see Issa, p. 141. The fruit: habba khadrā ("tilla", bizr al-butm ילו , qudāma ילו (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 195 after Musil); the resin: 'tilk al-butm المناف (Arabia, Loew 1, 192, 193), kamkām المناف (Vullers II, 887), bushka المناف (Plorisi); the fruit: Arabic

⁽¹⁾ Probably a South-Arabian variety of Pistacia (perhaps P. Kinjuk Stokes ?). See Lane, p. 1790.

GALEN VIII (XIII, 137): In the inner bark (lihâ' * L), the fruits and leaves of this tree there is some astringent, drying, heating and diuretic action, useful to the spleen (1).

COMMENTARY

The ancient turpentine-tree, the anacardiacea (rhoidea) Pistacia Terebinthus L., is a tree of the Mediterranean regions, very well-known from early times. It furnishes the "turpentine of Chios," the best and most expensive kind of turpentine, resin. The name turpentine was applied, later on, to the resins of different kinds of coniferac (*). In March 1932, lumps of this resin were discovered in a prehistoric site of Ma'âdî near Cairo, by Professors 'ÂMIR and MENGHIN (Egyptian University).

THEOPHRASTUS (IX, 2, 2) speaks about the different kinds of turpentine and mentions the turpentine-tree frequently.

A grove of turpentine-trees at Mann's near Hebron in Palestine was shown to visitors in Roman times as the alleged place of Abraham's sacrifice.

The name is old Semitic: Assyrian butm, Aramaic butmilit KNDDD (FRAENKEL, Die aramaeischen Fremdwörter im Arabischem, Leyden, 1886, p. 139), Hebrew bötem, but also Ass. butmu, Hebr. botnd. Other Hebrew names are flön, flim, fla. All the Arab physicians know this tree, its fruits and resin. The pustules, gall-nuts which are provoked by the sting of insects (3) are not mentioned by the Arab authors, although they are still to-day in use (e.g. in Turkistân) as an astringent and anti-spasmodic remedy.

⁽¹⁾ IB. gives a quotation from al-Gháfiqi concerning the action of turpentine on the bair. This passage must have been omitted by BARREBRARDE (see Lecl. I, p. 234-5).

⁽a) Gerrense, A test Book of Materia Medica. 4th edition (London, 1924) p. 467 foll.

⁽⁷⁾ According to DRAGENDORFF (p. 395) Pemphigus corniculates, Aphis pistacea (a teo-louse) and others. PLUSY (XIII, 6) observed the pustules as well as the inscots, and DYMOCK (I, p. 378) remarks that pistachic-pustules were sold in the Bombay market about 1890.

ABÔ MANSÔR MUWAFFAQ (ACRUNDOW, pp. 166 & 353) calls the drug bunk-i-mukhayyar it and speaks only about its alleged medical qualities.

LECLERC and SICKENBERGER were not able to identify the drug. Its name is entirely unknown to-day to the bazaar-druggists of Cairo. SCHWEINFURTH'S book on South-Arabian plant-names equally fails to give any information about it.

The Greek names naskaphton and naskaphton are probably of Indian origin. We tried to identify them with the names given in Indian medical literature. Nirvisha (DYMOCK III, 559) for example, is a root possessing properties akin to those of naskaphton; but it refers to a cyperacea, Killingia triceps. L. The bark or fibres of the cocca-nut tree (nasal-ka-pi) could also be quoted. For the Arab-Persian name bunk, there is an equivalent used in the modern Bengali name bangka, which designs the greyish brown bark of an Indian tree, the rubiacea Adina conditolia Hook. (DYMOCK II, 171). Anthocephalus Cadamba Miq. (wild cinchons) produces equally a bark, which is used as tonic and febrifuge in the same manner as bunk.

120. Butm pt., Turpentine-tree (Pistacia Terebinthus L.). (LECL. No. 302).

AGRICULTURE: It grows in the mountains between stones and rocks; its branches are blackish-green and its grains white (1).

Dioso. I, (71): Τέρμινθος (terminthos) is the tree of "the green grain" (al-habba al-khadra المنة المنة المنة المنة المنة). Its faculty is like that of the mastich-tree and its gum like mastich-gum. Its oil is manufactured in the same manner as laurel-oil and its wine like myrtle-wine. It is astringent and heating (2). Its fruit is bad for the stomach. It is heating, diuretic and aphrodisiac. Taken with vinegar it is good for the bite of the tarantula (rulation).

⁽¹⁾ They are light-green, and so reads IR, (I, 98).

^(*) The foregoing passage is missing from the editions of Dioscurides.

kind, however, comes from the Gold-Iand (1), and it is said to be the rotten wood of the sandal-tree. The best kind is the yellow one which is easily crumbled. The first kind is called "Umani (2) which is said to be met with in the land Mubran (3).

The second record is that of IDE1s1 in his also unprinted Pharmacology (MS. Fatih Mosque, No. 3610, p. 69, No. 151).

"Bunk is an Indian word. It is the name of an aromatic. DIOSCURIDES omitted to mention it (4). It is called in Persian awaditifur (5) and in Syriac (6). It is the bark of a tree brought from India as well as from the Yemen. It is hot and dry in the first degree and repairs, if used as fumigations, a uterus that has become dessicated. It is used as fumigations in order to bring out its aromatic smell and is sold as one of the "great" remedies. The druggists know it well." Then follows a literal quotation from Ibn Sînâ without any mention of his name.

IBN AL-FAQÎH AL-HAMADHÂNÎ (902 A.D.) mentions the drug in his geographical treatise (7). Speaking (p. 36, line 16) of the inhabitants of al-Yemen, he says: "They have al-bunk which is said to come from the wood of umm ghailân (Acacia arabica)."

YUSUF IEN 'UMAB, the Sultan of Yeman, from whom we would have expected better information, unfortunately disappointed us as he did not even mention the name of the drug in his book.

⁽¹⁾ Ard adh-Dhahab ارض الدهب; probably meaning the coast of Bast Africa.

^(*) Le. from 'Umda ile (Oman) in South-east Arabia.

^(*) To-day Balüchistân.

^(*) This statement is not correct as seen from al-Ghafigi's paragraph.

^(*) We suppose that this is a mutilation of maskuphton.

^(*) A blank histus left by the copyist.

⁽Bibliothees Geographorum vol. V) ed. M. J. nn Gorna, Leyden, 1885.

see No. 95, p. 200) in the Yemen. It is astringent, cold and dry, and when applied as compresses, it strengthens the organs and stops the diaphoresis.

IBN S?NA (1): The best kind is the white and light which has an agreeable smell; the white heavy kind is bad. It is hot and dry in the first degree, good for the stomach, cleanses the skin and removes the smell of the depilatory paste (nara 29).

AL-Magûsî(2): It is rarefying, fortifies the stomach and liver when they are cold (i.e. suffering from a "cold" disease), and is used as compresses and a potion.

COMMENTARY

Here, Barhebraeus has probably omitted a quotation from Art Hantra Ad-Dinawari, a passage which is of great interest and which has been preserved in the Arabic text of IB. (vol. I, p. 129). We give its translation from the Arabic text:—

ABÛ HANÎFA: "The bunk is mostly met with in the Yemen in Walk 'Awsaja وادى عومجه, that is a valley separating Zabîd from 'Aththar' (3).

There is not a single printed Arabic pharmacology that gives any satisfactory information about this mysterious drug. Research in unpublished MSS. gave the two following citations:

Al.-Bîrînî says in his drug-book: Bunk: Yahyâ (ibn Mâsavaih) and al-Khushakî عنا المناه say: "It is imported from the Yemen and it is said that it grows from the root of the acacia-tree (umm ghailin أُمُ غَلالًا) and that, when the bark is removed, it falls off from the trunk of the trees. It resembles the interior of the crumbling palm-branch-stumps. The choicest

⁽¹⁾ Partly quoted from the Qdmin (Bulaq edition, vol. I, p. 270).

^(*) The famous Persian physician 'Alf IEN AL-'ABRÂS († 994 A.D.), author of the Kamil' as-Sind's مال الساعة (printed at Bûlâq, 1294 A.H.).

^(*) Zabřd (*) is a woll-known town in the Yemen; the name of 'Athhar or 'Athr is in uncertain and is corrected by us from 'Atar is according to Yaqût's Geographical Dictimary (ed. Wunstremend, vol. III., p. 615). See also Irin Krierd'anner. Liber vierum et reprovem, ed. Dz Georg (Leyden, 1889), p. 182.

especially in the valleys surrounding the Dead Sea. SIGKENBERGER (Plantes, p. 26) proved against Legler that it was Moringa arabica (M. aptera Gaertn.) which corresponded to the descriptions of Diosc. and Abû Hanîfa. Honisberger (II, 311) calls it Moringa Sohangna and speaks of the great ignorance about the drug in India, where several totally different kinds of nuts are equally called habb al-bân.

The ben-oil which is an official drug (Oleum behen or balaninum) is extracted from another kind, Moringa pterygo-sperma Guertn. which has its habitat mostly in India and the Indian Archipelago.

Synonyms: Gr.: Βέλχνος μυρεψική (bálanos myrepsikē); Lat.: glans unguentaria, glandulae aromaticae (Medieval term, translated from the Greek); Ar.: bán ὑͰ, yasar ້. (¹); the fruit habb-al-bân ὑͰ , habba gháliya al-bân ὑͰ , goz el-bân ὑͰ ; (Issa); Pers.: bán ὑͰ; the fruit tukhm-i-gháliya - બ (Vullers I, 184), dánayi-bânὑͰ ఏlik (Acrondow, p. 3497); Turk.: like Arabic; Eng.: Horse-radish-tree, ben-oil plant, moringa; Fr.: arbre, noix de ben; Germ.: Behenbaum, Behennuss.

119. Bunk بنك Undetermined.

(Lecl. No. 359).

Diosc I, (23): Νάσκαρθον (náskaphthon), also called Νάρκαρθον (náskaphthon) is imported from India. It is a bark like that of the mulberry-tree and is used for fumigations on account of its aromatic smell and on account of its success in the treatment of obstructions of the orifice of the uterus,

IBN RIDWAN: A remedy of aromatic smell. It is said to be the bark of the root of the acacia-tree (umm ghailán בילי

^(*) This may be a continuation of the Ancient Egyptian Semitic name for the Oriental tamarink [] [] \(\sum_{\chi} \) \(\frac{1}{8} \) \(\frac{1}8 \) \(\frac{1}{8} \) \(\frac{1}{8} \) \(\frac{1}{8} \) \(\

Vigna sinensis D.C.), only excessively green. It contains the grains. When it is ripe it bursts and the grains are scattered. They are white and gray like pistachio-nuts, but shorter and of more brownish colour. They are split like the bark of pistachio-nuts, and from them is extracted ben-oil. Its fruit is also called ash-shû; it is quadrangular and grows more in droughty arid places. If desired to be cooked, it is contused on a hard stone, sifted until its bark is separated and then ground and pressed. It is rich in oil.

Diosc. IV, (157): Βάλανος μυρεψική (bálanos myrepsikė) (¹). It is the fruit resembling that of tamarisk (tarfā' (ανίδ)). When pressed like bitter almonds it discharges a juice which is used instead of oil in high-class perfumes. This tree grows in the laud of the Ethiopians, in Egypt and Arabia as well as in the place called Petra in Palestine. The best kind of this fruit is the fresh one, full and easy to peel. One drachm of the pounded (drug) drunk with vinegar water relieves the spleen. It is used as a cataplasm for gout and removes scabs when used with vinegar.

GALEN VI (XI, 845): This is a remedy brought to usfrom the Arabs. The perfumers use the expressed juice of its pulp (interior). One mithqal of its juice with honey-water is emetic and cathartic; with vinegar it cleanses xanthelasma (kalar المنافعة) (2) and leucodermia (bahaq غير) (3) (fol. 17 r.), freekles (namash منافعة), psoriasis (sa'fa منافعة) and pustules (buthary). The peeled-off shell of the ben-nuts is very astringent.

COMMENTARY

The ben-nut is the fruit of a moringacea. This species consists of three kinds only. The nuts sold in the Cairo bazaars (Ducros, p. 39) are those of *Moringa arabica Pers.*, a small tree of dry character which grows in Arabia and Palestine,

⁽¹⁾ The meaning of this name is "aromatic acorn."

^(*) The word kalaj designates also freckles.

^(*) The original meaning is "white lepra," Greek άλφός (alphds), perhaps vittige.

equally missing from *Ducros*' enumeration of modern Cairo bazaar-drugs. Sickenberger (Arzn., p. 41) saw its fruit in the bazaars.

AL-Bîrûnî, who again, is the most original of Islamic writers quotes in his lengthy paragraph on the balm of Gilead many old and partly unknown Syrian and Arabic physicians, e.g. Nicolaus, Mâsargawaih, Mâsawaih, Ayyûb of Edessa, ar-Râzî, al-Khatîbî المنافقة, ar-Razî'ilî المنافقة, etc. He treats in a very detailed manner the differences between the true balm and its substitutes.

As an officinal drug it is called Balsamum judaioum, gileadense, or Opobalsamum verum.

118. Bân Öb, Ben-Nut-Tree (Moringa arabica Pers.). (Leol. No. 226).

⁽¹⁾ Le. "balsam of the Kaaba."

had about forty of them freshly imported from Arabia. Atthe same time the Arabian commerce in drugs was in its decline so that Pope Pius V allowed, from 1571, the useof Peruvian balsam instead of Gilead-balm, in the preparation of chrism (Holy Oil) for the ecclesiastical rites.

Prosper Alpinus, in 1582, succeeded in growing the balsamplant from seeds procured in Cairo, while his pupil, Johann Vesling, professor at Padua (1), saw (about 1600) balsam-plants in some Italian gardens. Schweinfurth (2), however, could not cultivate small balsam-plants in Cairo—the plants being imported from Arabia. They all perished during the cold winternights of northern Egypt.

About the Hebrew and Aramaic names of the balm and: the balm-tree see Löw (I, p. 299-304).

THEOPHRASTOS (IX,6) said that the balm-resin was procured by incisious made in the tree at the time of the appearance of the Dog Star (Sirius). But the quantity collected in this manner was insignificant; more preferable is the process of our days which is by boiling the pounded ends of the twigs with water. Its trade is via Bombay. The Gilead-balm is a mixture of ethercal oil and a resin composed of resinous acids or tannates and resin.

The pretended numerous medical qualities of the balm were described by many medieval Arabic physicians. It was believed to cure nearly all the diseases, from plegias to cataract; and from calculi of the kidneys to gastritis. Modern Orientals still believe in its aphrodisiac action (Sickenb. Arm., p. 41; Tichomirow quoted by Achundow, p. 352).

It is interesting to mention that Yûsuf b. 'Umar, Sultan of Yemen, in whose land the balm-tree grew did not give any description of it but only quotations from IB. Balsen is

⁽¹⁾ Appendix to Prosteri Alemi De Plantis Aegypti, Lugd., 1736.

^(*) U. Somweineuren, Über Balsum und Myrrhe. Berichts der pharmaceut. Gesellach Borlin. 1893.

same year. Thus its cultivation was renewed. This fact was considered as one of the glorious events of the reign of al-Malik al-Ashraf Qânsûh al-Ghûrî الملك الأشرف قانصوه الغودى.

The Ivas copied the passage concerning the use of the halsam-oil in chrism from the Egyptian historian al-Magrizi (d. 1441). The great veneration with which this tree and its oil were held, was due to the legend that the B. V. Mary with Jesus rested near the Well of Heliopolis on their arrival to Egypt. The balsam was, therefore, considered as a product of the Holy Well. The allusion in the Song of Solomon, (IV: 14) refers probably to the balm of Gilead. The Jewish historian Josephus refers to the legend of the Queen of Sheba, who brought some shoots of the balm-tree as a gift to King Solomon. We know that the balm-tree was cultivated in the gardens of Svria and Palestine according to the authority of Greek and Roman writers. The famous Greek physician Galen says (ed. Kuehn, vol. XIV, p. 7) that he brought back with. him balm from these two lands. In Egypt the balm-tree was cultivated since the early Islamic period and perhaps earlier, in a single garden at Matariya , a northern suburb of Cairo situated on the site of the ancient town "On" (Heliopolis). Beginning with Masargawaih (see Introduction, p. 10) down to the XVth century all Arabic writers spoke of this garden balm-tree. European travellers referred to it as one of the wonders of Egypt. The French naturalist Pierre Belon described the tiny plants which he saw twice (Belon Du Mans. Les Observations de plusieurs singularités, etc. Paris, 1554, p. 110-111). Prospero-Alpino, the celebrated Venetian physician who lived in Egypt from 1580 to 1584, devoted a whole treatise to the balm (PROSPERI ALPINI De Balsamo Dialogus, Venice, 1591). According to him the balm-trees in the Matariya garden had perished at the end of the XVIth century, although the Turkish Pasha of Egypt

⁽⁴⁾ The last but one of the Manhik Sultans of Egypt. He reigned from 900 A.H. (1603 A.D.) urtil 921 (1516) when he chief in the decisive hattle of Marg Dibliq (in Syria)-against this Ottoman Sultan Schim I, the compensor of Egypt (1617).

Copts. In the olden time, one of the Emtrs or the Chief Treasurer (khazindar) was present on the day of the oil-collection. The best oil was distilled in the month of Baramhât (2). The grain was sown from Ba'anah to Hatûr (2). It was counted as one of the wonders of Egypt, and became extinct in the beginning of the Xth century (of the Hijra)."

Ibn Iyas continues his narrative later on, when his chronicle

reaches the year 914 A.H. (1508-9 A.D.) (3) :--

"One of the events (of that year) was that the balsamtree (balasan) which the people called al-balsam had become extinct from the soil of Matariya since the first year of the Xth century (of the Hijra). It was the pride of Egypt over all the other lands, and the kings of the Franks vied each other with the purchase of its oil. They bought it for its weight in gold, for they did not consider the rite of Baptism as perfect except until they could put a little of the balsam-oil into the baptismal water. The extraction of the oil was done in the spring-time during the month of Baramhât. When its growth ceased at Matariya, the Sultan was greatly disappointed. He never wearied to search for it in other countries until a wild balsam-tree, with the earth round its root, was brought to him from a certain place in the Hijaz (Arabia). It was planted at Matariya on the same famous site, and when irrigated with the water of that well, it grew and flourished in the

Bbtb ernun III III O of Apipi, goddosa.

Mesore arectope III O on the birth of Bee.

خسة أيام النبي . Five opagomenal days.

[□] e ⊙ e îèeçoor eppu †pozzu the five days over and above the year.

The Coptic year begins on the 11th of September (Julian computation), and New Year's day is called Watrik: , o(c), from Persian ; (Julian computation).

⁽¹⁾ Corresponding to March-April.

⁽²⁾ La. from June to November.

^(*) This part has been recently published by M. Sohersheim, P. Kanes and Mullareman Museawa (Die Obronik des Ibn Inde Vierter Teil. Internich, 1931, p. 149, L. 3 foll.).

the kness and other kinds of phlegmatic diseases. The oil of this balsam-tree was extracted on the 24th of Bashans (1) of the

(!) A Coptic month corresponding to about May. The 24th is the first of June, Agricultural works are all calculated according to the Coptic solar months, and not to the Muslim lumar ones, The Coptic year is a solar year and was instituted in Egypt possibly from the remotest times. The year is divided into twelve months of thirty days each, and added to them is a thirteenth month of five days called the Epagemenal Days, or in Arabin Ayydins et-Nosiy will the large of the Epagemenal Days, or in Arabin Ayydins et-Nosiy will the We have no record of the names of the Coptic months as they stand to-day before the EVIIIth dynasty. In all inscriptions the year in divided into three seasons of four months each, and the months are recorded eccording to their ordinal number in the respective season. The first season was that of vardum the Coptic according to their ordinal number in the respective season.

Sm.

The names of the months were possibly pronounced but not written. In Greek times they were always written according to their names. The Arabic forms were copied

directly from the Coptic. In modern folkiore each month has its quality thus:—

Hather ("the mother of the dispersed gold" (ماتورام الذهب المترر) in reference to
the Golden Hather —but more in reference to wheat whose crop is collected in this
month.

Baramidt ("go to the field and collect" رمهات روح النبيط وهات " referring to the copy which is reaped during the month.

Baramidals ("grind with the threshing machine" ربموده دق بالماموده) for the threshing of corn. etc.

Here is a list of the Coptic months and their etymology :-

and Engeddi (Josephus, Eusebins). 'Abd-al-Latif and Burchardus (XIIth century A.D.) did not find any traces of these gardens in Palestine (1). The balm of Gilead was an important ingredient in Holy Oil. It also served medical purposes healing wounds, and was an ingredient in embalming dead bodies.

The Arab physician 'Abd-al-Latif of Baghdâd (ab. 1200 A.D.) describes the balm-tree-garden of Heliopolis as having an area of seven feddâns (about 30,000 square metres); he adds that the produce of this garden is about 20 ratis (pounds) of balm a year. De Sacy adds to 'Abd-al-Latif's report translations from al-Maqrîzî, as-Suyûtî and other Arab historians, as we'll as some European pilgrims' reports and the legends told by them, ('Abd-al-Latif', pp. 20-22 and 86-90).

The Egyptian historian Ibn Iyas (d. after 1522 A.D.) in his very detailed chronicle of Egypt ending in the year of his death (3), related how the balsam-trees of Matariya died and were recultivated.

Ile says (a): "In this year (905 a.m. = 1499-1500 a.d.), the balsam-tree (المبان وهو اللحم) became extinct in Egypt. It was one of the remains connected with the story of Jesus, son of Mary — peace be unto them. The Franks came to Egypt from the remotest lands in order to buy the oil of this balsam-tree. They paid a high price for it. They (the Egyptians) brought the seed of the wild balsam-tree from the Hijâz, planted it in the soil of al-Matarîya and nursed it; but it did not grow and became extinct in the whole of Egypt, as if it had never grown in Heliopolis ("Ain Shams). It was the most venerated tree there, and had never disappeared (before then), It had existed a long time before the rise of Islam. It was of a beautiful smell, and its leaves somewhat resembled the leaves of Jew's mallow (mulakhiyya "illocorchorus olitorius L.). Its oil was used for "cold" diseases, like backache, pains in

⁽¹⁾ W. Hayo. Histoire du commerce du Levant ou moyen âge. Stuttg., 1878, vol. II به 577. (عًا (ط vols.) كُتُابِ هِدَاتُم الْمُورِ فَي وَقَاتُم اللهُ هُورِ تَحْمَدُ بِنَ احْدَ بِنَ الْمِاسِ (Cairo, 1310-12 A.H. (ع) Vol. II, p. 373, I. 16 foll.

of an aromatic smell. It is sold and used as a substitute for the balsam-grains. Its habitat is on lofty mountains. Others pretend that it is a kind of Salvadora persica (ârâk أَوَاكُ) (1). It is possible to adulterate the balsam-grains with the grains of the species of cypress, as they are very much alike.

ABÛ HANÎBA: Al-bashûm is a tree with a stem and branches, and small leaves larger than those of the marjoram (sa'tur origanum L.); it has no fruit. If its leaves are cut or its twigs broken a white milky (juice) comes out. It is a tree of fragrant smell and flavour; its twigs are used for cleaning the teeth. Its habitat is in the mountains. Its leaves blacken the hair.

COMMENTARY

The balm of Gilead or Mecca is the resinous juice of the burseracea Commiphora Opobalsamum Engl. which grows only in South-west Arabia, the Semaliland opposite to it and some regions of the southern coasts of the Red Sea. Its botanical synonyms are Balsamodendron gileadenee Kth., Amyris gileadensis L., Amyris Opobalsamum L. and, according to Schweinfurth, Balsamodendron Ehrenbergianum Berg. The Arabian name balsam is derived from Greek βάλσαμον balsamon, whereas basham (today bisham) is the name of the tree in the land of Yemen (Schweinf., p. 163). The Spanish plant referred to by Gh. may be the tansy (Tanacetum Balsamia L.).

The balm of Gilead was in use as remedy, perfume and incense from the earliest times of history. It was well-known to the Ancient Egyptians who called it properties to the Ancient Egyptians to the land of Punt (South Arabia and the south-west coast of the Red Sea). It was cultivated in Ancient Syria and Palestine (Theophr. IX. 6), and later on in gardens near Jericho

⁽¹⁾ See above No. 7.

grows in many places and it is the grains of this last which are collected and exported by the druggists, and sold by them under the name of balsam-grains.

THE AUTHOR SAYS: I find this explanation erroneous in spite of its currency, because all the (drug) merchants of our days are in accord that the grains of balasan and of basham are the same. Moreover, we often find with the grains of balsam which are brought to us, parts of balsam-wood; and similarly we find with the wood some of the grains, which proves that they are products of the same tree. Concerning the balsam-oil, I mot people who say that it grew in Egypt. But those who have visited Egypt pretend that they saw only one balsamtree at Heliopolis, in a garden under the protection of the Sultan. Nothing of the seed is exported to (other) lands (fol16 r) in order to prevent its cultivation (elsewhere). Some people allege that the balsam-oil is extracted from the wood by sublimation; this is contrary to the sayings of the Ancients. It is possible, however, that this oil which is known nowadays as balsam-oil is a different kind of oil from that described by the Ancients, although it is very rare. The grains, on the contrary, are very common and so is its wood. Many physicians wrote about the balsam-tree of Egypt at Heliopolis and described it in their books as being the (real) balsam-tree. It grows to the height of a cubit or more, and has sappy branches like those of the tithumalis (shubrum شبع) (Euphorbia pithyusa L.), and red, thin and small leaves resembling those of the willow (khilaf خلاف) or the spurge (yatta' إنتراع). At the ends of its branches it bears clusters containing grains of the size of pepperseeds but not as black.

We have in our land (i.e. Spain) a plant which some people pretend to be al-basham. It reaches the height of a man, has long and greenish-yellow leaves which are smaller than the leaves of the almond-tree (lauz). Its wood is hollow and contains in its interior something white like cotton wool, of an aromatic smell. Its grain is of the size of the cypress grain and

As regards the sticks called balsam-wood, the fresh kind is the best. It is rough and its sticks are minute. It is red and of an agreeable smell, like that of the oil of balsam.

Of the fruits the best are the full, big and heavy ones, which burn the tongue strongly and exhale the odour of the oil of balsam. (A certain kind of fruit is sometimes imported from the country called Herpaiov (Petraion, i.e. Land of Petra) resembling the intipizov (hypérikon, St. John's wort), as a substitute to the fruits of balsam) (1). These can be distinguished by their being small, empty, weak in faculty and with something like the taste of papper.

GALEN VI (XI. 846): The balsam is drying and heating in the second degree; but it has not such a strong heating power as some people erroneously think, on account of its rarefaction. Concerning its fruit called balsam-grain (habb al-balasam (مبالله ماله عليه), its power is the same except that it is less rarefied than the oil.

Diosc. (I; 19, 4): The power of balsam-oil is very strong; it is excessively hot and (therefore) useful against most of the "cold" diseases in the form of a potion, as well as friction or even as an eye-salve, In general the oil is its strongest component; next to it come the grains and after that, the wood.

IBM GULGUL AND OTHERS (3): The grain known as balsamgrain is (in reality) the grain of al-bashâm (3); but it is the balsan-tree (4), the wood of which is called balsam-wood and the oil of which is called balsam-oil. It has no fruit and its habitat is in Egypt at Heliopolis only (5). On the contrary, al-bashâm

⁽¹⁾ This whole phrase is missing from T. and G., and is inserted by us according to the taxt of IB. (Bûlâq edition, vol. I, p. 108, line 15 foll.)

^(*) This paragraph as well as the following expose of al-Ghāfiqt's own opinion are missing from IB.

⁽⁹⁾ Bashim is the South-Arabian name for Amyris (Commiphora) opohalsamum. The resinous juice is called balasin. See Gh.'s following paragraph.

⁽⁴⁾ In T. a copyist's mistake : bashdm.

⁽⁴⁾ In Arabio 'Ain Shame أي شمن بي أبي أبي " Fountain of the Sun," the site of the Anvient Egyptian town "On" called Heliopolis by the Greeks.

LETTER BÂ' -

117. Balasân ליים Balm of Gilead (Commiphora Opobalsamum Engl.) (Leel. No. 336).

Diosc. I (19): The size of its tree is the same as that πυράκανθα (pyrakantha, Crataegus oxycantha L.). It has leaves like those of the rue (sadhab سذاب) only whiter, longer-lived, more minute and differing from it in roughness, height, (fol. 16 r.) and size. It is only found in the Valley of Judges. The flour sticking like hair to the balsam-tree is called "the mown"; perhaps it is so called because it is easily collected. The oil of the balsam-tree, he wever, exudes after the rise of the Dog Star; the tree is then scarified by means of an iron scalpel and a very small quantity is exuded -so small that only between ond 60 pounds (ratl دطل) are collected every year. It is sold on the spot for double its weight in silver. The kind that is fresh, clear, free from any acidity in odour, but possessing a trong smell, easily liquefied, soft and slightly stinging the tongue, is the best. It is sometimes adulterated with the oils of terebinth, henna (hinna to Lawsonia inermis L.), the mastichtree (Pistacia lentiscus L.), the lily (sawsan سوسن), or the oil called μετώπιον (melôpion) (1); also with the oil of myrtle (âs ω) mixed with honey or with wax. The best way to know the pure kind is to drop it on a piece of wool and afterwards wash the latter. The resin then precipitates in water. The adulterated specimen, however, floats on the surface like oil and separates or applomerates like stars (2). When it becomes old it thickens. It is wrong to believe that the pure kind, if dropped into watersinks to the bottom at first and then floats on the surface without being liquefied.

⁽¹⁾ This is said to be an aromatic Egyptian cintment (Diese, I, 59).

^(*) f.e. in drops like stars in heaven.



in the Moroccan vernacular: an-nashshāfa أنشأفة "the absorbent") and sulat al-bahr صوفة البحر ("the sea-fleece").

No. 109, Isfidhâg: Maim. (No. 20) gives the vernacular Arabic name in use in Morocco: al-bayâd البياض ("the whiteness").

No. 110, Isring: Maim. (No. 28) spells the name usrung and gives, for this minium, as Arabic names al-basâliqûn and az-zarqûn البياليقون . البياليقون . This latter name is still extant in the Spanish language as azarcon.

No. 112, Infaha: Maim. (No. 30) gives the Arabic name al-'aqd المقد and the undetermined (Spanish or Berber ?) name alima

No. 114, Ibn 'Irs: Not recorded by Maim. Myogale (μωογάλη) of Diose, designs the shrew-mouse (Sorex vulgaris and Crocidura aranea); their Arabic names are, according to Sharaf (pp. 240 and 836), farat as-samm and farat al-misk فارة السام فارة السام فارة السام فارة السام

Under the Bibliography we omitted to say that our quoe tations from Dâwâd (p. 44) refer to the best edition of his Talhkwa (Cairo, Wahbiyya, 1281, in three volumes).

names of the drugs, the Berber ones, and the names in the Moroccan and Andalusian Arabic vernacular, and also the Spanish. Many of these names are corrupt, and the restoration and editing of the text and translation will require a considerable time. We shall collate our text (1) with this MS. and shall use the Synonyms for our commentary. We give here some additions to those that appeared under the letter Alif in our first fascicule:—

No. 10, Iggas: Main. (No. 13). The name barquq was in use in Murocco in the XIIth century A.D.

No. 15, Ambarbāris: Maim. (No. 17) gives the Arabic names athwan أثوان and as-sausal السوسل.

No. 18, **Anaghallis:** Maim. (No. 16) mentions as the commonest names in Morocco 'ushbat al-'alaq عشبة العلق ("leech-as' herb").

No. 28, **Ustukhûdûs:** Maim. (No. 6) gives two otherwise unknown names: washâ's' ash-shaikh وشائع الشيخ and sunbul al-ahâniyyn أسنيل الأطنية.

No. 30, Iklîl al-Malik: Maim. (No. 7): the Berber name is tîrdzan نَوْالْقِيُّة.

No. 33, Andrasiyûn: Maim. (No. 33): a name of undetermined origin is gahânîk جمانيك

No. 60, Asâbi' Sufr: Main. has a special chapter (No. 26) for asâbi' al-'adhâsâ ("virgins' fingers"); he says: "This is a kind of black grapes with long berries resembling dyed fingers arranged in rows."

No. 80, **Afithîmûn:** Maim. (No. 23): the name in use in Spain was as-su'aitira المحيّرة (" the little thyme").

No. 105, Isfing: Maim. (No. 5) calls it isfang al-bahr اسفنج البحر and gives two more Arabic names which were in use

⁽¹⁾ We owe a photographic copy of this MS, to the kindness of Dr. RITTER.

live on certain desert-plants, in symbiosis with different species of cochineals. All the plants in question produce sweet manna, in reality a product of the cochineals (mostly Trabutina mannipara and Najacoccus serpentinus); these little insects are protected by a large yellow-brownish spider Theridium aulicum which, in turn, is nourished by the sweet produce of the cochineals. It lives on several desert-trees, e.g. Tamarix nilotica var. mannifera (tarfâ in line was a line of these corresponds to the description of akharsâg in Ibn Wahshiyya's Nabataean Agriculture. Thus the question remains unsettled.

Of much greater importance to our present publication is the recent discovery in one of the libraries of Istanbul (Constantinople), by Dr. H. Ritter, of an old pharmacological manuscript - Ava Sofia. No. 3711. It contains, amongst other valuable matter, a "Discourse on the Explanation of Drug Names" (Magdia fi Sharh Asma' al-'Uqqar مقالة في شرح أسماء العقار) by Abû 'Inran Mûsâ ibn 'Abdallâh al-Isrâ'îlî al-Maghribi who is no other than the celebrated Jewish physician and philosopher Marmonings. Hewas born in Cordova in 1135 A.D., emigrated with his family first to Morocco and from there, in 1165, came to Egypt where he became the chief of the Jewish Community in Cairo and the physician-in-ordinary to Sultan Saladin and to two of his sons. and successors. Maimonides died in Cairo in December 1204. Apart from works on theological and philosophical questions. his medical output was considerable (1). The above-mentioned "discourse" was cursorily referred to by Ibn Abî Usaibi'a (vol. II. p. 117, last line), but by no other author. It was therefore considered as non-authentic. Thanks to Dr. Ritter, a copy of this treatise has now come to light, written by the hand of Ibn al-Baitar himself(2), who died 44 years after Maimonides. MS. contains 405 articles on drug-names in 55 pages. Maimonides gives the Arabic, as well as the Persian and Greek

⁽⁴⁾ See our Introduction, p. 24, No. 43 and Max Mexeuror, L'awere médicale Monantie, in Arthitic di Horia della Scienza (Arabeion), vol. XI (1929), pp. 138-185.
(7) See for this schale are Introduction No. 50 (n. 27).

THE EGYPTIAN UNIVERSITY

The Abridged Version of "The Book of Simple Drugs"

ADDITIONS TO INTRODUCTION AND LETTER ALIF

While the first fascicule of the present publication was in the press, we learnt of certain books which were of help in the explanation of the names and nature of several drugs mentioned in that fascicule.

It was too late to include this information in Fascicule 1, and we give it here. We add (p. 23, after No. 41 al-Bakri) the Hispano-Jewish physician Jonus Ibn Is-haq Ibn Biklarish Hispano-Jewish physician Jonus Ibn Is-haq Ibn Biklarish we who composed for the fourth King of Saragossa, Ahmad II. al-Musta'in (d. 503 A.H. - 1110 A.D.) a medical treatise al-Musta'ini fi't Tibb المنتمني في الطب It contained the names and synonyms of simple drugs, as well as their substitutes. This book was frequently used by later pharmacologists, although it was never mentioned by al-Ghâfiqi. See the learned article on this book by H.-P.-J. Renaud, Trois études d'histoire de la médicaine arabe in Hespéris (Paris, 1931) pp. 135-150.

Next to him we name Abu'i-Walid Mabwan Ibn Ganah Hispano-Jewish philosopher and grammarian of the XIth century A.D. who wrote, besides his other world-famed works, a treatise, at-Talkhis (i.e. "the Résumé") on simple drugs, weights and measures. This book contained many synonyms in Spanish and Berber dialects and was much used by later authors. It is sometimes cited by al-Chafiqi as well as by Ibn al-Baitar; the Arabic original is lost.

Concerning the undetermined plant Akharság حرياً (No. 16, page 84): In a recent work on the natural history of the Sinai Peninsula by F. S. BODENHEIMER and O. THEODOR (Ergebnisse der Sinai-Expedition, Leipzig, 1927), it is said that spiders

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